



HEALTH

BY

GOOD LIVING.

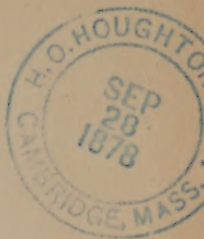
BY

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PREFACE.

THIS book is to show how high health can be maintained, and common diseases cured by "good living," which means eating with a relish the best food prepared in the best manner.

The best food includes meats, fish, poultry, wild game, fruits, and the grains which make bread.

The best cookery preserves the natural tastes and juices.

As there can be no "good living" without a good appetite, how to get this great blessing without money and without price necessarily, is pointed out, and, it is hoped, in very clear and plain terms.

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HEALTH BY GOOD LIVING.

CHAPTER I.

THE OBJECT OF EATING.

WE eat to live ; and if we eat wisely of what He has provided who giveth us all things richly to enjoy, we shall live well, healthfully, and long.

To eat wisely, we must adapt our food to our age, to the various occupations and callings of life, and to the temperaments of the system. This may appear to be a very discouraging complexity in the very outset, but it is only seeming ; for Infinite Wisdom and Fatherly Beneficence has implanted within us a kind of self-acting guide, has made it a part of our being, and, if it is wisely deferred to and considerately followed, half the ordinary diseases of humanity would be blotted out, and a score of years added to the average duration of civilized life.

As soon as the little duck breaks its shell, it waddles toward the water, and sails away over the bosom of the tiny pond right gracefully.

The humble climbing vine will direct its course straight to the nearest bean-pole ; and the roots of flower, and shrub, and tree, as they delve down into

the hard earth, will ferret out the richness and the moisture of the soil, taking the very shortest course to the more favored spots ; and so the infant, in the first hours of its existence, greedily partakes of its mother's milk, which contains in large proportions the elements which supply the first necessities of infantile existence. This wise and friendly guide to animal, and plant, and man is called "*Instinct*," and is our kindly mentor and preserver from the first cry of infancy, until the fiat of the Maker calls the patriarch home to His bosom in heaven ! This instinct is chiefly our guide during the undeveloped mental condition of infancy and childhood ; at those accidental seasons of later life when reason may be in abeyance from disease or other causes ; and when action is necessary to the preservation of the body in the various emergencies to which humanity is subject, and which action must be taken before reason has had time to assert herself. This is familiarly illustrated in every-day life when the child, or even the man, stumbles and falls forward, throwing his hands before him, to preserve the more important part, the face, from disfigurement. The writer has seen men fall from the tops of houses and from a mile in height,¹ and the body was always noticed to assume the shape of a ball, as if to present the smallest possible surface for the terrible contact. The cattle in the field, in cold, windy, rainy weather and in the sleets of winter, draw up the body or contract the back to a circular form, thus presenting less surface to the chilling blast. Men, in very

¹ See Note IV. p. 274.

cold winds, thus contract themselves in walking or in sitting down, in the out-doors, by which means less of the surface of the body is exposed to the wind, and, as a consequence, less heat is carried from the system. This is the work of Instinct ; but few, comparatively, knew the philosophy of it until explained to them, as now.

It is this same Instinct, exhibited in another direction, which calls for food to sustain nature. The animal creation is probably guided by it altogether in eating, as to time, quality, and quantity, and, as we see, is in a measure exempt from disease, dying more by age and violence than by sickness.

The animal, the infant, and the demented seem to be guided in their eating, mainly at least, by the instinct of a natural appetite ; and if men were more under this same influence, and were less the slaves of appetites which are artificial and acquired, it will scarcely be denied that they would be largely exempt from many of the maladies which now afflict civilized society. We eat to live, and life is warmth, growth, repair, and power of labor. The first necessity of human existence is warmth, alike indispensable to infancy, manhood, and old age. At every period of life, at all seasons of the year, in the tropics and at the poles, the human body in health maintains the same temperature, which is about ninety-eight degrees, Fahrenheit. This warmth is derived from the food we eat ; and that which yields heat in large proportions is called "carbonaceous," answering to one of the simple, original elements,

“carbon,” the more familiar representative of which is charcoal. Carbon or charcoal burned before our eyes gives out heat; when taken into the system in the form of food, it undergoes a process of burning there also, and throws out a warmth which, diffused over the body, is called *vital heat*. The amount of such heat necessary to the health of a good-sized man, and which is developed from the food eaten in twenty-four hours, would heat twenty gallons of ice-cold water to a boil, or from thirty-two degrees to two hundred and twelve.

Sugars, starches, and oils are the more concentrated forms of carbonaceous food, some of them having scarcely anything left after all the carbon has been withdrawn. And, as if to compel helpless infancy and feeble age to use the means necessary to keep the body warm enough to live, Providence has given to childhood an almost insatiable desire for sweets; and without the element of sweetness in its food, the healthiest born infant would die in less than a month. In vain would it nestle in its mother’s bosom, in vain its exposure to the warming sunshine, and in vain the softest blankets and the finest furs to encase its body; for the warmth which sustains human life must come from within,—must be generated by the internal combustion of the carbonaceous elements of eaten food.

As we turn the downhill of life, we begin to grow chilly; the aged court the sunshine; they covet the chimney-corner; or, sitting before the fire on the hearth, they stretch out their feeble,

trembling arms, and spread abroad their thin and bony fingers, and, with open mouth, bend toward the cheerful blaze as if drinking in the delicious heat; and, on reflection, it will be found that for long years there had been a growing love for meats, and fats, and butter, and oils; it was instinct leading the way for the generation of that warmth which would be increasingly needed as years passed on, and which was to be more suitably derived from the carbonaceous elements of fats and oils than from the sweets of sugars, so coveted and so rioted in by children; and it is just as unphysiological, and just as unwise, to deprive the old man of the fat meats on which he luxuriates, as to deny to childhood the sweets which constitute its heaven; hence the prejudice which deprives the young of sweets is founded in ignorance. Childhood must have warmth, and wise Nature has implanted within it an overpowering appetite for the sweet foods from which that warmth is to be generated. Reason must be the guide, as will be seen hereafter, as to the times, and quantities, and qualities of the sweets to be taken.

It has now been shown that we eat to keep ourselves warm. In the Tables at the end of this book, some of the more familiar and common articles of food are named, with the amount of the carbonaceous principle in each. Not that we are to eat mathematically, by square or compass, by weight or measure, nor by any inflexible rule; those who do so will die early. There is not a straight line in all Nature. A loving Providence has created us with

wonderful adaptabilities ; has allowed us a liberal margin of action, that by the aid of reason we may accommodate ourselves to the various exigencies of human life. He has not placed us in this beautiful world to be put in a strait-jacket. He has not made it death to us, if we eat a minute before we are hungry, or drink a drop beyond the wants of the system, but has given our constitutions a certain pliability by which they are able to adapt themselves to the emergencies incident to our earthly condition.

We must not only eat to keep warm, we must

EAT TO GROW.

The blade of grass of to-day is taller than it was yesterday ; the sapling, larger than a year ago ; and the huge oak stretches its giant arms higher in the air, and wider, than a century since. All these grow in part by feeding on the air, by drawing its component elements to themselves, then condensing them into more solid substances, which are incorporated with themselves, and thus become part and parcel of the living body ; but, at the same time, the little roots below stretch out their tiny tendrils deep and broad, and by a mysterious agency dissolve the solid earth and its more solid metals into fluids and thinner gases, and then, drawing them up into the growing body, they become solidified, and make a part of the living whole. In ways like these, atom by atom is added to blade, and stalk, and towering tree, and thus do they grow day by

day. Hence vegetation eats to grow, by appropriating exterior unliving things to its own living uses ; it takes the inanimate earth and air, and makes them a living part of its living self, and in turn is appropriated to the sustentation of a form of life as much higher than itself as it was above the baser dust on which it fed ; for upon this lower life of grass, and herb, and tree, the cattle on a thousand hills are fed, and they at last are given to men to eat, and thus become incorporated in turn into a still higher existence, are made a part and parcel of the living embodiment of man ; a candidate for an immortal state beyond, at so infinite a remove above the beasts which perish, that he is even now but a little lower than the angels, and is ordained to have a nobler name, a higher place, and a grander destiny than they !

In a deep, damp, dark dungeon, writes a lady of world-wide renown, I saw him chained to the cold, slimy stone floor ; his largest liberty was three steps back and forth ; that ugly, clanking chain never by any possibility allowed him to go further ; and all day long, and sometimes all night, for so many mournful years, the weary, naked foot had fallen on the same hard spot on that pitiless stone, and had worn into it a deep hollow ; yes, the solid stone had worn away, but not the soft skin of that unhappy prisoner's foot ; it gave no sign of wearing out. The stone was dead matter, and when a portion of it, ever so infinitesimally small, was worn away, there was no power to replace it. The sole

of the foot was a living thing. It wore away faster, much faster than the more solid stone ; but as soon as one particle was displaced, another was deposited in its stead ; as when a soldier falls in the front rank of battle, his brave comrade from the rear takes his position, and the line remains always full. This particle supplied to the worn foot is brought to it in the blood which circulates to every pin-point of the body, but that particle is supplied from the food eaten. Hence, we not only eat for purposes of warmth and growth, but

WE EAT FOR REPAIR.

All machinery, the most perfect piece of mechanism which ever came from human hands, will wear out, because there is friction. Its cogs, its wheels, its bearings, its axles, and its cylinders all move upon one another, more or less directly. Such motion implies friction, and friction causes loss of substance necessarily. Millions of money are expended every year for the purchase of oils and other lubricants to lessen the tremendous wear and waste in the running of our locomotives, the trains on our railroads, and the machinery of our numberless mills and manufactories. But the living human body came from the hands of the Infinite One. It is the perfection of mechanism, and has within itself the power of growth and development ; and more, it makes its own repairs and provides its own lubricants ; it works incessantly day and night, summer and winter, seed-time and harvest, for a hun-

dred years. It never stops, it never wears out, until the work is completed for which it was made, and the Master-builder bids it run no more ! It is made of its hundreds of muscles, and bands, and sockets, and hinges, and pulleys, all playing upon or dragging across each other. The very smallest of these motions involves waste ; indeed, not a single crook of the finger, not a bend of the arm, not a twinkle of the eye, not a thought of the brain, but is at the expense of some solid portion of the human machine ; and yet, at the end of a century, it remains a whole in all its parts ; while the most perfect constructions of man come to a dead stop in a very few months, and would stand still forever, unless some new cog, or pin, or pulley was supplied. But the tongue which speaks to-day, spoke a hundred years ago just as well, and the eyelid winks as easily at fourscore as in infancy ; it does not even wink tiredly. And all this, not because there are no wastes of substance in this wonderful frame of ours, but because they are as promptly repaired as made.

We not only eat for warmth, and growth, and repair, but for the generation of those internal forces of brain and body, of thought and action, of voluntary and involuntary motion, which together constitute man's efficiency as an immortal being. All now understand that food gives nourishment, and nourishment includes warmth, growth, repair, and strength or power to work as to body and brain. The ordinary articles of food have one or more of

these elements in varied proportions. Some have all, as milk, and eggs, and bread; and the instincts of the race have led to the adoption of these as articles of food the world over. But, whatever we eat, three things must be supplied to us daily, carbon to keep us warm, nitrogen to give us flesh and strength, and salts, which, in combination with carbon and nitrogen, makes them nutritious; these "salts" are represented by the ashes which are left if we or the food we eat were burnt up. And any article of food which combines in it the three elements named, carbon, nitrogen, and salts, gives the idea of perfect food, of which bread, and meat, and milk are the most familiar samples.

POWER TO WORK.

The power for bodily labor and mental effort must be supplied from food which contains nitrogen, expressed hereafter by the single word *albuminate*, from its resemblance to albumen, the most familiar representation of which is the white of an egg. If the blood is cold, and is then heated, a portion of it melts, and becomes fluid; this is called "albumen." All understand that the blood is our life. It is the blood which builds us up, which gives animation to the whole human system. The element which does all this, is the albuminate portion; and this principle is found in all the food eaten by animals and men; it is found alike in plant, and bush, and tree; in the sap, and seed, and fruit; and more especially, and in largest quantity,

in all the grains from which we make bread, which, from this fact, is emphatically the staff of life.

Foods which are rich in carbon, which give only warmth, such as starch, sugar, fats, and oils, give no strength, nor can they sustain life long, if not combined with albuminate and salts; hence, if a man wants the power to work day after day, he must renew that power by eating food which gives it, which contains albuminate. And this is not by any means a mere theory or conjecture. It is the observation of men who, without science, have noticed, in the employment of large numbers of laborers on railroads, that those who had the best appetites did the best day's work; mere size was a secondary consideration, except the size of the appetite, because, the more food of a mixed kind, such as comes upon our tables ordinarily, a man consumes, the larger the quantity of albuminate taken into the system. A good feeder makes a good worker, hence the poorest of all economies is the stinting of those who are employed to do work; and not only does a man become unable to do a good day's work on a scanty allowance of food, but he requires time for recuperation; for after you begin to feed him well, several days are needed to enable him to come up to his proper work. And what has been said of power of body, is equally true as to the brain, for the man who studies hard, must eat abundantly, else not only debility of body follows, but the brain begins to consume itself, to feed on its own substance,—many a man has

thought himself to death. The intense thinking made the brain feed upon itself, because nutriment was not supplied to it fast enough by generous food and a healthful and vigorous digestion; for, as digestion fails, the brain ceases to work clearly, legitimately, logically, and to advantage. There is a consumption of the brain as well as of the lungs, and both mean death, unless wise remedies are applied, and in a timely manner.

The amount of power supplied to the human body in the course of a life-time from the food eaten will strike the unreflecting with amazement. Leave out of the account all the steps a man takes during his threescore years and ten; leave out, too, all the work he does with his hands, and all the turnings of his body; and take into calculation the force which only one little organ expends during a life-time, the busy, busy beating heart, which beats three thousand millions of times without a stop, and, in doing so, propels from itself to the farthest extremities of the body which it serves, half a million tons of blood! and in every such propulsion exists a force represented by thirteen pounds. We eat for power to work.

CHAPTER II.

WHEN TO EAT.

THE instinct, observation, and experience of civilized society have led to the practice of eating three times a day, — morning, noon, and night. Circumstances, habit, necessity, have caused the appointment of different hours for eating in some cases without demonstrably hurtful results ; but the great general rule, for those who work, is as above stated, and for them the best time for.

BREAKFAST

is the early part of the morning, before they go out to their daily labor. A habitual compliance with this single, simple rule would almost exterminate the greatest scourge of the Western Hemisphere, *fever and ague* ; and this would of itself be a blessing of inconceivable value. Any reader who was in the habit of spending a night now and then with the hospitable old Dutch farmers around New York forty years ago, will remember that it was a custom among many of them to breakfast by daylight, especially in the winter-time, and very early in the morning in summer ; who were healthier, and lived longer, than the old Knickerbockers ?

In the earliest years of the writer, in the great Mississippi Valley, the word —

ANTIFOGMATIC

was an expression of every-day life, which carried with it a practice of great value. It then meant an "early dram," a good drink of honest whiskey, for it was in the very heart of "Old Bourbon" where these things transpired; but the appellation originated in the custom of taking something into the stomach very early in the morning, when the damp and pestiferous fogs and bad airs hung low over the country and the town; for it came by degrees to be observed, that those who ate something very early in the day, were exempt from fever and ague. When it was not convenient to prepare a regular breakfast, it was thought something in its place might answer the same purpose; and the most convenient substitute was a drink of whiskey, which then and there was very cheap, about two dimes a gallon. The "tavern" was the "grog-shop" in those days; but even at that early time there was something in a name, and some respect for appearances; and the sturdy old fellows, not willing to acknowledge they were going to get a drink of grog, would speak of it as an "antifogmatic," a rude combination of words intended to mean something which nullified the effects of the early morning fog upon the general system; and a good many of those men who took their antifogmatics every morning, lived to the age of sixty, and seventy, and eighty years.

In one of the hottest of all hot summers; in the

sickliest locality of all sickly places in the United States, so sickly that it was called "the natural burial ground;" on the low-banked, stagnant, and slimy bayous of the South, — then and there, where death was so common, and sudden, and frequent, that men thought human life a mere bauble, and, not satisfied with the fearful fatalities of sickness, rioted in their desperate recklessness, and were hewing each other to pieces with their bowie-knives, for it was then and there that "Jim Bowie" lived, — in such a summer, in such a place, the author, fresh with his diploma, first began the practice of medicine. Riding day and night, early and late, through broiling suns and drenching rains; prompt at every call from one plantation to another, from country to town, from swamps to pine hills; sleeping night by night on the very bank of the most sullen and stagnant and slimy of all the bayous of that region, — he never was sick for one single remembered half second. He never left the house under any circumstance, never went outside the door after daylight, until he had taken his breakfast. While one class of persons "died off like sheep," it was noticed that another class did not die at all; they lived and lived on indefinitely long, and finally dried up. Some of them the author knew; they were old thirty years ago, are apparently no older now — the French Creole planters; they would have a cup of strong hot coffee brought to their bedsides every morning before they rose to dress.

The principle under discussion is one of incalcu-

lable practical importance, especially in new countries, in all flat-lying lands, on all river bottoms, and wherever vegetation is rank, luxuriant, and of rapid growth; hence pains have been taken to present facts which cannot be disputed, and if they but make a just impression on the mind of the reader, the practical carrying them out will bring its own reward. Here, in a Northern State, in a Western State, in a Southern State, one practice, adopted by different nationalities in different latitudes, was followed by the uniform result of a remarkable exemption from diseases which prevailed in every direction among those who neglected that practice, to wit, of taking something into the stomach very early in the morning after a night's sleep.

WHY AN EARLY BREAKFAST.

The longer the interval between eating, the weaker does the body, as a whole, become; and so with each individual member and organ. Five or six hours is the usual average between breakfast and dinner, and between dinner and supper; and the reader is conscious of a weakness or faintness commonly preceding the eating hour, especially if work of body or brain has been done.

Another observation has been made, that after a meal, in health, we feel better, stronger, more vigorous. But from supper to breakfast there is an interval of ten or twelve hours, about double that between the other meals; and although there may not have been as much thought or work as between

the others, still there has been enough to leave the body more or less faint or languid, as witness our own sensations when we are about getting up in the morning; witness, too, our indisposition to activity or labor for some time after rising.

In proportion as the body is debilitated, every individual part, member, or organ shares its proper portion of that debility. The whole body being more or less debilitated in the morning soon after we get up, the stomach and the heart are proportionally weak.

In proportion as the body is debilitated, it is susceptible to the influences of disease; this is true the world over, and is admitted alike by all classes of practicing physicians and all schools of physiologists. Not only is the body more liable to disease in the morning from the long fast of the night and the consequent debility attending it, but it is more liable from the want of vigor of the circulation of the blood; it lacks power to repel disease and all destructive agencies. The man who starts out in the morning without his breakfast to cross the Pontine marshes near Rome, will die of disease in a few days, — of some form of malignant fever. He who takes a hearty breakfast, and rides through without a halt, will suffer no harm. Very ignorant people in Rome know this, although they may not be able to account for it philosophically.

When food is taken into an empty stomach, it is said to “stimulate” it; that is, the very contact of what was swallowed, with the coats of the stomach,

excites a greater, a more active circulation of the blood, and in a very few minutes the body feels more or less of the strengthening influence of the nutriment derived from the food ; hence there is increased action and strength all through the system, which has the effect to prevent the mischievous ingredient of the air from entering the circulation of the blood, for by entering, it becomes a cause of impurity, of stagnation, of poison, and of death.

Men have been able to discover the laws of action of the poisonous ingredient of the early morning air upon the debilitated body and the unresisting stomach ; but every effort has hitherto failed to discover any of the physical properties of that ingredient, which is so subtle that a bottle of the air has been taken and analyzed by the best chemical tests known, and the air so taken has not been found to contain any other ingredient than portions of air of the healthiest regions. This proved, not that there was not an additional element in this disease-producing morning air, but that human skill and ingenuity could not detect it ; at the same time, the laws of its action were determined, and also the agencies by which that action could be antagonized with uniformity and certainty, as will be more specially detailed in treating the subject of " Miasm," in subsequent pages. Here it only concerns us to know that in temperate and tropical latitudes the ill effects of early morning air on the human system are measurably avoided

by taking an early breakfast, warm and nourishing ; the theory being that food, or whatever drink causes a healthful stimulus or stimulating action in the stomach, does, at the same time, give the system power to resist the ill effects of the agencies in question. Thus far as to the healthful effects of taking an early breakfast in warm weather ; for it will be seen hereafter that the malignant ingredient which is present in the morning air in warm weather, is wholly absent in cold weather, unless in circumscribed localities, as within houses where a warmth is kept up sufficient to generate the specific poison alluded to.

BREAKFAST IN WINTER.

It promotes health to take a good warm, nutritious breakfast early on a winter's morning, because the heating material taken at supper has been used up during the night ; and if not early supplied in the morning by more food, the whole body is liable to cool down to a chill, which may produce inflammation of the lungs, and death within five days. Little children and old persons, and the feeble of every age, having but a small surplus of heat in winter, are especially liable to inflammatory diseases by being kept too long, in cold weather, without food. From supper to daylight is a long enough interval without food, except to the robust, active, and vigorous ; and even these latter are the safer for the shorter interval which the early winter breakfast gives.

Not only is health endangered by a late winter morning's breakfast allowing the system to cool down to a point too low for safety, but it occasions a loss of time in getting the internal heat raised to the safe and healthful standard ; for as long as a person feels cold all over, no work either of brain or body can be performed to advantage. But the shorter plan is for any person of intelligence and observation to test the fact in his own person ; and then, having seen the demonstration of the truth, he can never be in doubt again, and will always feel fortified and strengthened, in after life, in having the right plan carried out as to all those who may come within his control.

But it is an economy of time also, to take an early breakfast in all seasons ; for then the first strokes of work are not only more vigorous and telling, but the strength of the system is not allowed to go so low, to become so used up, that valuable time is lost in bringing it to its natural and healthful standard : all of which can be put to the test of practical experience in any two mornings, by such readers as want to know things for themselves ; for few indeed are the learners from the experience of others, and in a sense it may be said, as to matters like these, that we know only what we have experienced within ourselves.

THE BEST SUPPER TIME

is demonstrably, especially in warm weather, half an hour or more before sundown ; not as a mere

convenience, nor is it a far-fetched theory : it is a necessity in the very nature of things, if we wish to avoid a great variety of diseases.

First. Whatever elements of disease are found in the morning air in warm weather, are present also in the air about sundown, more particularly explained under the article about "Miasm."

Second. If supper is delayed too long, the work of the afternoon has so exhausted the strength, the power to work, of the food eaten at dinner, that the system is left weak, and chilly, and cold, while the circulation is languid, and the spirits are depressed, as any one may perceive in the uniform dead expression which pervades the countenance of all workers when they reach home at night, and before supper has been taken. Every observant reader has repeatedly noticed two things : first, taking a meal increases the warmth of the system, even before it is finished ; second, it is attended with an enlivening influence on the mind, and heart, and spirits ; while a third fact has forced itself upon the most unobservant, that, during a great part of the year, there is more or less of an ugly chilliness or heavy dampness pervading the air about sundown. These three facts, therefore, compel us to the conclusion, were there not more imperative reason, that the better time for supper is a while before sundown, — better for the head, the heart, and the body.

DINNER TIME

should be at noon, as to the great masses of society. An unfortunate necessity may impel some business men in the large cities to take dinners late in the afternoon, and some may follow the practice with apparent impunity; but the risk and responsibility are their own, and there it is left, at least for the present. As a common thing, persons cannot take into the stomach more food than will last six or seven hours; if more is taken, it cannot be acted upon to advantage by the stomach, nor can the person work well. Ordinary labor exhausts the strength contained in a common meal in the time specified. Persons may habituate themselves to eat more and to work more; but taking everything into account, families, consisting of old and young, of strong and weak, of the robust and the sickly, will find it most convenient, as an average, to eat at about six hours' interval; and this, with an early breakfast, brings the dinner at noon. The work after breakfast whets up the appetite for dinner; the work after dinner grinds up the food, manipulates it in such a manner as to enable the body not only to obtain from it the power to work in the afternoon, but to give something of a surplus, to answer the wants of the system during the night, in connection with a light supper. Hence, the world over, the noon dinner is the great meal of the day; it supplies the wastes of the forenoon's work, and, as just said, gives power to labor through the afternoon.

LUNCHEON

has had no place in these pages ; it is the common enemy in cities and large towns, for it engenders afflictive diseases in many, and to not a few it is the fruitful cause of moral and social ruin and a disgraceful and premature death, as we shall see. The word means a lump of food eaten at not a regular meal. It is an eating "between times ;" and as this is the main and most frequent cause of our national disease, "Dyspepsia," called at other times "Indigestion," the latter being from a Latin word, the former Greek, it is well to give the whole subject a critical investigation. In a chapter answering the question "When shall we eat?" it is pertinent to consider the kindred inquiry, when not to eat. All know that the body as a whole cannot work always, must have rest ; so every portion of it must have rest. It does not require much effort to wink the eye, and yet it becomes tired if winked in quick succession for a minute or two.

The stomach is a combination of muscles, hence it is called an organ ; it is in the nature of a machine, and all machines wear out very soon unless rest is allowed. The work which the stomach performs is to prepare the food for yielding its warmth, growth, strength, and repair to the whole body ; a part of these are almost instantaneously withdrawn from the food while it is in the stomach ; other parts, in its progress through other portions of the body downwards. It has been ascertained that

an ordinary meal is digested, as far as the stomach is concerned, in about five hours ; at the end of that time all the food has been passed out of it ; it is empty, and in a sense goes to sleep, but not for long, for in an hour or two certain vessels connected with it become filled with a fluid, and their distention causes the sensation of hunger, and we want to eat again ; no sooner is this done, than these vessels which caused the sensation of hunger, empty their contents in among the food, dissolving it and preparing it for yielding its nutriment to the system, as before described.

But if more food is eaten before the stomach has been emptied, the process of digestion is arrested as to the food which was first taken, and does not go on until the food taken later has been brought to the condition in which the first was, and then all goes on together.

It is, however, a law of our nature, that if the food taken into the stomach remains there too long, being kept as it is at a temperature of about a hundred degrees, it begins to sour, just as any moist food would begin to sour if kept warm, neither hot nor cold, for the same time ; by becoming sour, this food rots, is unfit to give nourishment and strength, and hence does not answer its legitimate purpose.

Another ill result is, the food being imperfectly digested, it gives an imperfect nutriment ; and as this imperfect nutriment is the material out of which new blood is made, that blood is imperfect

and impure; but, being distributed all over the body, it not only does not meet the requirements of the system, but causes an unnatural sensation or condition of things wherever it goes, more particularly to parts which, from any cause, have been injured or debilitated. Hence there is found an easy explanation of the many and varied complaints which dyspeptics have; scarcely any two being alike in the combination of their symptoms; all, however, agreeing in one thing, that they are wretched, that life is a burden, and enjoyment impossible.

This subject will be further pursued when Dyspepsia or Indigestion is more especially treated, the object in the remarks now made being to impress on the mind the necessarily injurious effects of eating between meals, for the obvious reason, the stomach has no time for rest, and must, like the body itself, or any individual portion of it, if kept constantly at work, lose its power of working, by being "worn out," exhausted, and destroyed.

"EATING DOWN-TOWN"

is a form of luncheon which business men adopt in some of our large cities, especially in New York, from apparent compulsion, it being considered impracticable to leave their various employments in the middle of the day, when even minutes are sometimes of great value, for the purpose of dining with their families up-town, which would involve a clear loss of two or three hours. There could be

no enjoyment in such a meal, because there would necessarily be an impending sense of hurry, and more of uneasiness and anxiety to be at their business places, which sensation would alone be a very important power in generating dyspepsia of the most aggravated kind within a few months.

But the tendency of down-town luncheons upon the health and morals of all, ought to be pointed out, with a view to impress the reader's mind with the importance of devising some remedy for evils so great and so inevitable. Every merchant proposes to himself the general plan of "taking a snack," a "hasty plate of soup," or some other form of light repast at noon, so as to prevent the stomach becoming too empty, or the system from too great exhaustion from the long interval between breakfast and the regular dinner at four or five o'clock, or later. The object is good, and the philosophy of it is founded on true physiological reasons; but the manner of the performance makes all the difference in the world. In the first place, there is no regularity in the lunch; and regularity, order, is Nature's first law. Every business man will confess that the emergencies of trade and traffic are such that the time of taking lunch varies several hours, and sometimes is forgotten altogether, until it is too late to take one without interfering with the regular dinner in the afternoon. There is no habit of the body, no function of any organ, which will not be injuriously affected, if not destroyed, by irregular action or working. All know the value

of regular sleep ; and yet cases are given in medical works where persons have become deranged by continuously broken sleep, or have fallen into such a habit of wakefulness, that an uneasy sleep of three or four hours was all that could be had in any twenty-four. Nature can never be baffled with impunity. Perhaps no other one thing engenders so many and such a variety of diseases as constipation of the bowels, which is brought on, in innumerable cases, by the person resisting the calls of nature, for the sake of some fancied convenience or some unwisely imagined necessity. If this is done, even for a short time, Nature seems as it were to become indignant, and calls no more ; and a habit is set up which will make the subject a martyr to some form of human suffering as long as life lasts. So with hunger and the stomach ; if the sense of hunger is resisted, if the stomach is not supplied with food at stated times, it loses its tone, its vigor, its power to work, and dyspepsia follows, to sour the disposition, to irritate the temper, to depress the spirits, to change the whole moral nature, causing unhappiness, not only to the sufferer, but more or less to all those who may have to meet him in business or in domestic life.

THE INSIDIOUS ENEMY.

Men do not dine down-town long, before they get into the habit of "taking something" at their meals. In fact, most of the eating-houses calculate to make as much in the way of profit on what

their customers drink, as on what they eat; and boys, and clerks, and young men, very soon begin to feel that it looks manly to call for something at lunch. They think it adds to their importance in the estimation of the waiters to take a glass of wine, or beer, or other drink; just as a little earlier they thought it "manly" to smoke a cigar, or "take a chew." Men often invite their friends to go and take a lunch with them, when it is expected, as a matter of course, some form of stimulant will be ordered; this is sooner or later reciprocated; and thus, the man who, a while ago, had taken a glass only occasionally, finds himself taking it every day; and if from any cause he does not get it, there is a disagreeable sensation of wanting something, and this is not appeased until the accustomed glass is supplied; and this is the beginning of the end, the miserable end, of filling a drunkard's grave, leaving a ruined estate, a broken-hearted wife and children in want, in destitution, and in desperation, and too often soon ready, in their recklessness, to do and dare anything. Very many cases have occurred in New York city, of gentlemen who once would have been shocked to have had a brandy bottle beside them at their own table, in the presence of wife and children, yet in a very short time have gradually fallen into the habit, at down-town lunch, of having a glass of ale, or beer or wine, ending in clear brandy.

WALL STREET SENSIBILITY.

It is said that Wall Street is the most sensitive spot on the globe. That is, it sees, on the instant, what effect national occurrences, at home or abroad, tend to have on monetary affairs; so alive are men, and so acute, in seeing what is to their own interest. Capital is careful; and it may surprise the reader very much to know that the practice of drinking liquor in connection with lunch has become so general in New York with young men, and clerks, and others in subordinate positions, and the ill effects are so apparent, that quite a number of the largest banks in and about Wall Street have for more than a year been in the habit of having substantial lunches spread in their own buildings, under the very eyes of the more responsible bank officers, so that their business may not suffer from their clerks indulging in liquor with their lunch. And if moneyed men, for pecuniary considerations, expend large amounts every year to guard against the evils referred to, it is very certain that the necessity for it has been forced upon their attention by incontrovertible facts. And it is high time for parents and guardians, and even sisters and wives, to consider whether they have not a more than pecuniary interest in devising measures to counteract the mischief of dining down-town as to the male members of their households.

A physiological fact which will not be denied, is that neither body nor brain is in a condition for

effort longer than six or seven hours after eating, and that to eat nothing from breakfast until five or six o'clock in the afternoon will certainly bring on serious, incurable, and even fatal diseases in a very short time. Two practical questions must then be determined. Is it necessary to be absent from home on business from morning until night? This question must be decided on the responsibility of the individual most interested. If it is necessary, as it is undeniably hurtful to study or work so long without food,

WHAT SHALL A MAN DO

who must be in business, and who has a family to support by that business? He must either have a regular dinner at noon, and a light supper with his family when they take their five o'clock dinner, or he must take a safe lunch at noon, take a regular dinner with his family not later than five, and nothing whatever besides, either eatable or drinkable, until breakfast next morning. But this is not enough; with this alone the constitution will most assuredly be undermined, sooner or later. The disposition of the time after a five o'clock dinner must be adapted to the circumstances. Something must be done which will promote the healthful digestion of dinner; and something can be done which is not only physically healthful and pleasurable, but which, if persisted in, will greatly promote social enjoyment and domestic happiness. It should be arranged that dinner should be over at not a later hour than

six o'clock, winter and summer. The first half-hour after dinner should be spent in pleasurable conversation, in leisure promenading, or sitting in an easy, erect position, reading something which requires no continuous thought, such as the short articles of a newspaper. The better plan is a leisure promenade in the open air in suitable weather, or in the verandas or halls of the house, or in some large, well aired room, warm enough to give a feeling of comfort ; for it is greatly injurious to have a feeling of chilliness within an hour after eating, as it has sometimes induced fatal consequences in a few hours. But besides this, some more active exercise ought to be had before bed-time. A "drive" answers a good purpose ; a ride on horseback is much better ; and perhaps better than all, as more frequently available, is an hour's visit to a friend or neighbor's family. Such a visit, properly conducted, has a larger number of great advantages than any of the forms of after-dinner pastime named. The rather dull routine of family employment is pleasantly interrupted by a social visit. There is an exhilaration in the exchange of items of news, of neighborhood gossip, and the comparison and expression of views in reference to practical life, which is in itself both interesting and useful. Many a family jar has been interrupted by the casual dropping in of a lively, talkative, and cheerful-faced neighbor ; and their departure allows subjects of conversation or remark, which often obliterate nascent acerbities, and the memory of ruffled feel

ings. Families would be happier, neighborhoods would be happier, and society in general would be elevated, and refined, and humanized, if such interchange of visits were cultivated and practiced to ten times the extent now customary. Many a time a neighbor's burden is removed by the hearing of greater ones which press upon others, or are made to appear scarcely worth a notice, by having another look at it from a different stand-point; and thus a blessing at least is made of what but half a moment before, in a soured or irritated state of mind, seemed an oppressive calamity. The very walk to and from a neighbor's after tea is refreshing; it has given that much more luscious out-door air to the system, and every step has added an increased activity to the circulation, and given additional elasticity to the mind, to the spirits, and to the domestic relations and affections. It often happens that going to a friend's house leaves us more contented and thankful at our own lot, in comparison with what was seen at our neighbor's, and we return to our own home better satisfied with it than when we left it an hour or two before; or something may be seen at that neighbor's table, or in the parlor, or something observed in the general surroundings, which, added to our own home, would increase its coziness or make it more convenient or attractive. An item about cookery may be learned, or the management of servants, or the regulation of the family, or the preparation or arrangement of clothing, from which both comfort and profit may be

derived for the remainder of life ; and, not least, a very large fund of quiet enjoyment may be had in the promotion of neighborly feeling, by making it a point to repeat all the good things and complimentary things which have been dropped by lips away, in reference to those now spoken to. By this same thing, little, insignificant as it may seem, and so easy of performance, a very large amount of kindly feeling may be encouraged and diffused in neighborhoods, which would largely add to the general enjoyment, by promoting a mutual appreciativeness among the members of a community, the tendency of which is to cement friendships, and kindle and cultivate attachments and mutual kindly feelings, which will last through a long life, and be the means sometimes of hereditary friendships, which are to be a source of happiness to generations yet unborn ; for, let it be remembered, we are social beings by nature, and the cultivation of such a natural quality will necessarily bring with it a large increase to human happiness and human good.

These things are recommended as a necessary means of promoting a more active and healthful digestion of the last meal of the day ; of antagonizing the evil effects which will inevitably result to all, sooner or later, of that tardy dinner which is felt by many to be imperative in connection with certain business customs in some of our large cities.

A man may eat a hearty dinner at five or six o'clock, and remain in-doors until bed-time, under the plea of being too tired or too sleepy to take a

walk ; but, if it is not done, evil, unmitigated evil, will be the result sooner or later, and life will be cut short a score of years. Even a half-hour's walk up and down the street, or along the public highway, with a wife, or sister, or daughter, or guest on a man's arm, after a late dinner, will bring a high advantage, will promote a better digestion, will procure a sounder sleep, and will do very much towards removing, or at least alleviating, that sense of fullness, or oppression, or smothering, which so many have experienced after eating a too hearty meal.

CURE OF A SURFEIT.

And if, when an excess at dinner has been committed through inadvertency or the solicitation of over-kind hosts, or as complimentary to an accomplished hostess (for a woman feels complimented in the direct ratio of the heartiness of her guest's appetite, and the amount of her provender which he disposes of) ; if, it is repeated, from these or other causes, too much has been eaten at a meal, and a sense of "fullness," as it is most frequently designated, is experienced, — it is most unwise to attempt to relieve a stomach already too full, by forcing into it one glass more of any fluid whatever, even although it be the choicest wine or the purest brandy ever prepared for man's destruction. Let it be remembered, on this almost every-day practical point, that the feeling of fullness or other discomfort from over-eating arises from the fact that the stomach is too much distended to be able to act upon the

food, so as to put it in a condition to be passed out of itself; and a glass of wine or brandy, or even of cold water, aggravates the evil by increasing the fullness. The rational method of relief is to do something which aids the stomach in its natural action, and by which it will, in as speedy a manner as possible, relieve itself of a portion of its contents; and nothing so certainly and so safely insures such a result as a moderate walk, just active enough to prevent a feeling of chilliness and to secure a very gentle glow on the surface, or the slightest perceptible moisture, felt by the hand being placed on the forehead. A violent walk, a race, or a horseback ride, on a full stomach, aggravates the evil with perfect certainty; but a leisure walk, causing a little, a very little moisture on the skin, and kept up until the feeling of relief is very decided, is the only philosophical method of getting rid of a surfeit. Medicines can be given which will accomplish the object in a very few minutes; an emetic will empty the stomach in double-quick time. A good dose of castor-oil will send the engorgement in another direction with railroad speed, but at the expense of a shock to the system which sometimes induces convulsions and death in a few hours, or leaves debilitating consequences, not to be recovered from, in some cases, for many weeks. Besides all this, medicine, even the mildest, is essentially a poison, and effects a desired result in proportion to its poisonous quality. It cures by setting up a disease greater than the original which it seeks to

cure, and hence ought to be resorted to only when, in the judgment of a competent physician, it is necessary ; hence the earnestness with which it is urged to use the safe, and mild, and certain means of a leisure out-door walk, or other form of gentle exercise, for an hour or so after a late dinner, as a means of enabling the stomach to empty itself, and be at rest, by the time the body, as to all other parts, is ready to take its repose on the couch for the night, and thus secure a sleep which has in it no startling dreams, no dreadful nightmares.

HOW WALKING PROMOTES HEALTH.

Physiologists have ascertained that every step taken has an appreciable effect in promoting the activities of the whole alimentary canal, including the stomach and bowels. Their natural activity is health ; their want of that is disease always, everywhere, and inevitably. Too great an activity of stomach and bowels is cholera, and all know that locomotion in the first stages of cholera is certain death ; hence absolute rest on the bed is enjoined by all classes of physicians, because every step increases the activity. If, then, walking promotes a more active state of the bowels, when the condition of the system is such as to require increased activity, every step taken is to that end. Hence every step taken leisurely after a meal has been eaten, helps the stomach to digest the food eaten more rapidly, thus preparing it for a more speedy distribution throughout the system, for purposes of nutrition, warmth, strength, and vitality.

But there is another reason why a leisure walk or friendly visit to a neighbor is healthful, in connection with a late dinner. It relieves the system of a portion of its solid material in the shape of insensible perspiration, and the overfilled stomach participates in that relief. An effort has been made to show how gentle exercise benefits the body after a late dinner, or after any hearty meal; but any one may demonstrate it in his own person by comparing the sensations of two consecutive days at ten o'clock at night, or on the subsequent mornings, when a hearty late dinner has been taken, with such a walk following as has been recommended, and an equally hearty dinner without such a walk.

A CHEERFUL MIND.

Whatever may be the benefit of a leisure walk after a hearty meal, that benefit is very greatly intensified by performing that walk in company, especially if a joyousness of spirit is present, and is promoted by lively, exhilarating conversation, by mirthfulness, and a hearty forgetfulness of all disturbing thought as to business engagements. It may be safe to say that the benefit of exercise is doubled by its being taken in a jovial, joyous mood.

If several hours after a late dinner were every day, as often as a late dinner is taken, spent as above, alternated with attendance on public meetings, lectures, parlor amusements, and other forms of agreeable pastime, late dinners may be made compatible

with good health and a genial old age, if wisdom and firmness are habitually shown in taking at noon

A PROPER LUNCH,

suitable for all classes of business men, travellers, sportsmen, and others who cannot conveniently take dinner at noon, which is simply a "sandwich," with half a glass of water and an orange, or an apple. The term just used was applied to a favorite dish of the Earl of Sandwich, which was originally two pieces of bread and butter, with very thin slices of ham or other salt meat between them. It is well to state how a sandwich may be best prepared, as it comes in place under a great variety of circumstances, and may be made delicious if proper attention is given to its making up. If this is done, it is good enough for a king, and will be very much relished by any one who has been employed five or six hours in labor or brain work.

A DELIGHTFUL SANDWICH

is made thus: Take two pieces of light bread, spread with butter. Between these place very thin slices — three or four of them are better than one thick one — of salt or fresh meat, turkey, or chicken, or a slice of each. If the sandwiches are for a party or for the table, several should be prepared and put in a pile. Press them with a clean board, so as to make them stick together, and trim the edges neatly with a very sharp knife. Wrap them firmly in a white, damp cloth, and put them in the

picnic basket, where they will remain without jostling; or, if for the table, put them on a plate and cover with a damp napkin, until used. But, for one person, two ordinary pieces of bread and butter and several very thin slices of meat are enough; for it is not intended to be a full meal, but only enough to stay the appetite, so as to prevent the strength from going too low, and the appetite from becoming voracious.

To take this sandwich lunch with really beneficial and healthful results, it should be eaten about noon at some regular hour; not to make one's self a slave to the minute, but aim to have it within any hour, say from twelve to one, not sooner than twelve, nor later than one: this gives the business man the margin of an hour. It should be taken in an apartment alone, so as to be free from interruption or mental distraction, so that it can be eaten leisurely, quietly, and with deliberation; then it will be thoroughly chewed, and will pass into the stomach without haste.

It may appear to be a small matter, but it is not, to insist that the lunch should be taken in a private apartment, where no one can intrude. A gentleman would scarcely care to have a friend, or customer, or client, or patient come bolting into his office to find him eating a piece of bread and meat, or be compelled, in his haste, to cover it over with a paper, or slide it hastily in a drawer, and feel as if he had been doing some little, mean thing; any interruption of this kind would inevitably occasion

a mental perturbation or flutter, exceedingly unfriendly to a healthful digestion. It is at all times of considerable importance that we should eat with quiet deliberation, or with an exhilaration of spirits, so as to keep all the fluids of the system in healthful activity. If, on the other hand, the mind is flurried or the lunch is taken hastily, the result is the same; the nervous energy which ought to have been expended on the food is used up in the brain, in the mental activities, and the food is not digested; it remains, in a measure, unaltered for hours. The regular dinner comes on; we do not feel hungry, for the very good reason that there is food already in the stomach; but as it is dinner hour we think we must eat anyhow, that it would be too long to wait until next morning; and we do eat the dinner, mixing fresh food with what is in part in a state of decay, of chemical decomposition, or, in plainer terms, in a state of rottenness,—when there can possibly be no other result than a most unpleasant feeling of fullness, or oppression, or nausea, to be followed by a night of dreams, of unrefreshing sleep, and a “miserable” to-morrow, with entire unfitness for business; it is even followed, and that not uncommonly, by an attack of cholera morbus, of bilious colic, or fatal apoplexy. Such results may sometimes be a year or two, or more, in coming; but that they will come sooner or later to us, and are coming to those we know, at no long intervals, is as certain as any uncompleted event can be, for Nature will, at length, always assert herself in

matters of this kind. These may be considered trifling things by some, but life and death often hang on trivialities such as these.

THE FATAL GLASS OF WATER.

A brave French general, overheated in having some artillery drawn up to the top of a mountain, felt himself almost overcome with thirst, and greedily drinking freely of snow water, fell down and died instantly. Had he taken but a swallow or two at a time, at an interval of half a minute or so, no harm could have possibly resulted; and yet here was a valuable life lost by drinking a few table-spoonfuls of cold water in one minute instead of ten. So the manner in which a sandwich is eaten may be made agreeable and healthful, or be made a cause of considerable discomfort, according to circumstances.

THE REASON WHY

the lunch described, taken in the manner proposed, will result healthfully in several ways, accords with fixed physiological laws. It has been said that no man can work hard, in brain or body, with advantage and without harmful results, longer than six or seven hours. If the lunch is taken in five or six hours after breakfast, it finds the stomach empty and prepared to receive it; in fact, the man is hungry; the general system, by its own instinct, has sent a telegram to the stomach, that recruits are needed at the outposts, recruits of new atoms

of matter to take the place of those which have been destroyed or used up within the last six hours, for that is the meaning of the sensation of hunger. The perfection of nutrition is hunger first, a small amount of plain, substantial food next ; then follows the third process,—a healthful digestion, and a perfect blood, carrying life and strength to every part of the body. Such a meal in the middle of the day is much more healthful than a full meal, when it has to be followed by more work. A clergyman will always preach better with one sandwich between his sermons than when he sits down to roast turkey with concomitant tempters ; because, in the latter case, the nervous energy which is necessary to the digestion of a hearty meal rallies around the stomach, draining the brain of its forces. In the case of the laborer, he cannot work to advantage soon after a hearty meal, for the necessities of the stomach compel the nervous energies from the muscles of arm and limb and chest ; and it is well that it is so by a fixed physiological law, for if the nervous power is withdrawn from the stomach soon after a hearty meal, life is endangered by convulsions, which will inevitably result if the power is kept away but for a few hours. Hence, by taking a moderate lunch at noon the stomach takes hold of the small amount of food greedily and easily, and manipulates it for the requirements of the system, which is at once ready to resume its accustomed labor. Gentlemen who have travelled much on horseback, day after day

continuously, know full well that but a moderate amount of food must be given at noon to the noble animal; the heaviest meal is given to him after he has rested at night, or in the morning. A man like the horse could very easily eat a great deal more at midday, but the horse is allowanced judiciously by his master; and the man can more readily allowance himself by taking with him a specific or measured amount. The effect of this moderate meal is that it is wholly digested, that good and healthful blood is made out of it, and it stays the hunger of the system, and prevents that ravenous appetite which is the result of a dinner too long protracted. Thus when a lunch is taken at noon, strength is derived from it to last until dinner, while dinner itself is not partaken of ravenously; consequently it is partaken of leisurely, moderately, and time and opportunity are afforded for its easy digestion before the hour for retiring.

It is, then, not a late dinner which is in and of itself so pernicious, — not pernicious at all if the circumstances connected with it are judiciously arranged. What has made

LATE DINNERS

the deadly things they are is their connection with a lunch, which is of itself a full dinner, and made more tempting and more excessive by the liquors which are used with them and the high seasonings which make a part of them. After this full lunch, too often hasty, and taken with a

perturbed state of mind, men dive again into their business, with every nerve strung to its highest tension, leaving the food to digest very slowly ; in fact, so slow is the process that by the late dinner hour it has not yet been passed to the other parts of the system ; and the man allowing himself to be under the hallucination that he has not taken dinner, but only lunch, feels late in the afternoon that he must take his dinner, and forces it upon himself, or by strong potations gets up a fictitious appetite, which he gratifies to the full, and to his own certain undoing,—because he is not only taking a late dinner, but an early one too, which is more than one stomach can manage, and disease in some form or other, painful and protracted, is an inevitable result. It is thus seen that neither are lunches nor late dinners, in and of themselves, the murderous things they are represented to be, but are made so by a confusion of ideas, and by the circumstances which are connected with them. Man is an adaptable animal, intended to live in all latitudes and in all climes, to be surrounded by a great variety of changing circumstances ; and he can live healthfully and long under the equator or at the poles, if he will only conduct himself in wise accordance with his surroundings.

CHAPTER III.

WHAT TO EAT.

IT has been already seen that the object of eating is to give warmth, growth, repair, and strength to the body, which things are to be derived from what is eaten, from what is taken into the stomach as food, and whatever gives the things just named is comprehended under the one word "nutrition:" whether the food eaten gives one, or two, or all of the things named, that kind of food is called nutritious. All food gives to the body one or more of three things: carbon to warm, albuminates to give flesh or strength, and salts to make the carbon and albuminates impart nutrition. Whatever then can be gratefully or pleasurably taken into the stomach, and which, when there, can be so managed as to impart nourishment to the system in a healthful manner, should come under the designation of food, and may be eaten. Hence, in answer to the question, What shall we eat? it may be taken for reply, "We may eat whatever we have an appetite or taste for, which is capable of nourishing the body, of affording it warmth and strength in a healthful manner, that is, in a way which is not attended with any ill results." Brandy and other liquors give warmth, for they contain a large

amount of carbon ; and they give strength, but it is a strength without foundation ; it really only enables us to appropriate from the body a part of its store of strength in advance. In one sense it is a paying or using the income before it is due ; in another sense it is a living upon the principal. With a greater evil still, it leaves behind it injurious results : proportioned to the amount taken, it leaves debility ; in other words, it went in debt and the debt has to be paid. Debility is not the only ill result ; if its use is persisted in, actual disease is generated in various parts of the system, which either mars life and life's pleasures, or destroys it prematurely, according to the amount and frequency of its use. Hence liquors cannot be considered food, because they do not impart the elements of food without attendant ill consequences. We may then eat of what gives us nourishment healthfully, and against the use of which as food there is no just restriction. Men can live on men ; men can live on horses, or mules, or other animals, but restrictions are imposed which all good men will respect.

APPETITE.

We may eat what is nourishing, and if there is an appetite, a taste for it, it will do more good than if taken with repugnance ; it is more easily digested and prepared for imparting nourishment and life to the body.

There are some things for which we seem to

have a natural appetite. The infant loves milk the first day of its existence ; the various preparations of bread and eggs and fish seem to be eaten with a relish by all nations ; so are the fruits of the earth ; but men, and animals also, can be educated to eat, and eat with a relish, what once there was a decided aversion to even taste. Hence there is a natural appetite and an educated appetite ; the latter is liable to be the cause of great mischief, as when persons learn to use tobacco, eat slate pencils, and the like. It would not, therefore, be correct to say that we should eat whatever there is an appetite for. The general statement simply is made, that we should eat what imparts healthful nutriment to the body. This is intended to apply to those who are well, — who enjoy good health. There are individual cases where it is advisable not to eat indiscriminately of the flesh of animals and birds and fish, of the grain of the field, of the fruits of the tree, and the various berries which grow on bushes, and the numerous vegetables which are richly supplied to our tables.

Corpulency in man is a disease arising from the fact that certain portions of nutriment which he receives are not conveyed out of the system, but remain stored there, and accumulate sometimes in such immense quantities as to be of serious inconvenience to the individual, impeding locomotion, hindering greatly in the performance of daily work, causing an abiding and uncomfortable shortness of breath, and seeming to dispose the system to attacks

of apoplexy, or other forms of sudden death. If such a person desires to reduce his weight to more convenient proportions, it becomes of practical interest to inquire

WHAT SHALL FAT MEN EAT

Fat in the human system is an accumulation of heat-producing or carbonaceous material; hence those desiring leanness should avoid to a reasonable extent the use of carbonaceous food, such as abound in oils, and fat, and starch, and sweets.

Another principle of action is that as a man requires a certain amount of food daily to supply the wastes of the system, if he wants to reduce his weight, he must eat less every day than the system requires; this would be a more speedy method than the mere avoidance of fatty foods. The bear of our country becomes fat in the autumn from the large supply of food which he finds in the forest at that season of the year, and, seeking for some retired spot, a cave, or hollow log, he hides himself away, and, with his paw in his mouth, sleeps until spring, unconsciously, it is said, sucking it all the time. He remains the whole winter in a kind of torpid, frozen condition; but the fire of life had to be kept up all that time, which was done by the gradual use of the surplus fat with which he was supplied when he went into his winter-quarters; now instead of being rounded, and sleek, and fat, and strong, as he was a few months before, he is but little more than skin and bone, and with

the first sunshine of spring he emerges from his winter home to hunt, and feed, and recuperate.

All know that in a very short time the shipwrecked sailor becomes reduced to skin and bone, when food has not been supplied to him. The rule, then, for the fat man, who wishes to reduce his bulk is to avoid fatty foods and eat daily less than the system actually needs, and the effects will be more palpable, if, in the mean time, he works hard or aims to spend a large portion of daylight in outdoor activities. The advantage of this method is that he will not only not become weak in body or listless in mind, but will find an amazing change in the activity of his limbs, in the soundness of his sleep, and in the life, and buoyancy, and elasticity of his spirits; the brain, too, will act with extraordinary clearness, and all the sensibilities of the system will become etherealized, elevated, and refined; and in comparison with his former condition of obesity, breathing will become a bliss, and life a protracted sunshine; the only drawback will be that he will be hungry all the time, but then he don't want to be fat. Every acquisition has its effort and its self-denials, and there is no exception in

THE ACQUISITION OF LEANNESS.

BANTING'S SYSTEM A CAUSE OF BRIGHT'S DISEASE.—Dr. Thomas Clemens of Frankfort (*Chemical Gazette*), reports three cases of his own, in which the patients had carried Banting-ism to an excess. So insidious was the invasion of the renal disorder, that when the patients first

applied for medical aid, the symptoms of Bright's disease, fully developed, were found in each instance. All the cases were fatal, and each was accompanied with a rapid and profound disarrangement of the whole system, associated with symptoms referred to the brain and cord. Dr. Clemens believes that a tendency to the disease is caused by the loss of the fat of the kidney, together with an excessive supply of albuminous material in the blood.

It will aid the fat man, if some specific statements are made by which he may be able to proceed with safety and with system in attaining the object of his laudable ambition; these statements are the result of carefully conducted scientific experiments, made by eminent men by the requirements of governmental authority, hence cannot be doubted or denied.

The quickest way to reduce a man's fatness is to eat less. If he is in a hurry, eat nothing. A young man lost fifteen pounds in a few days, thus: On Tuesday, the 18th of May, he fell asleep in the steamship *Rising Star*, and the hatches were closed on him at Aspinwall; on Wednesday, the following week, about eight o'clock in the morning, an interval of nearly nine days, he was discovered on the arrival of the vessel at New York, not having tasted a particle of food or drank a drop of any kind of liquid in the interval. When discovered he was unable to stand up. Tea was given him, but he could not retain it on his stomach; a spoonful or two of sherry wine was next administered; this was retained, and repeated at ten minutes' interval for several times; then more nourishing

food was furnished in very small quantities at short intervals, and by this treatment, he recovered in a few days.

AN EGG A DAY.

It is known that a celebrated German scholar took refuge in a hay-loft from an infuriated soldiery ; the next day a hen came, made a nest near him and laid an egg, which he ate ; this was repeated daily for fourteen days, when the army having left the town, he emerged from his hiding place, and was able to walk to the house of a friend, having lost several pounds of flesh in the mean time. So that if a man lies still all the time, he may subsist on a very small amount of food, a common egg weighing but two ounces. If, however, a man is walking about, out of bed all day, but not working any, and is in good health, he requires at least a pound or sixteen ounces of nutriment. Different persons require different amounts ; but taking fifty men promiscuously from any crowd, in good health, they will require from sixteen to eighteen ounces of actual nourishment ; but it will take about six pounds of common food in its natural state, as it comes on the table, to yield one pound of nutriment. To make statements more easily remembered and yet sufficiently accurate, it is enough to say that while a man in good health requires a pound of nutriment every twenty-four hours, to keep him at his weight and strength, without work, three quarters of this must be warming or carbonaceous food, and one quarter of a pound of albuminate, or

muscle or flesh-making food, called also nitrates or nitrogenous food. In the experiments made, some persons lost four pounds in weight in two months; others lost two pounds only. But to show with what accuracy the experiments were conducted, it was determined to find out why some men lost twice as much as others in the same general circumstances; and it was revealed that the men who were fed on mush and milk at certain meals lost one half less than those who took molasses with their mush; because molasses is a carbonaceous food, it only warms; milk is an albuminate, it makes flesh and gives strength, as it is one of the perfect foods, has all the elements of nutrition. If persons wish to diminish their bulk, weight, or fat, the general rules everywhere applicable to the sedentary are: —

1. Eat such amounts, morning, noon, and night, as will keep you hungry three fourths of your waking existence.

2. Let one sixth of your food be albuminate, that is strength and flesh giving, and five sixths of the carbonaceous kind, such as give warmth.

3. If it is desired to hasten the result, either work a great part of the time in the open air, or think intensely; for both work and thought consume the fat of a man.

HOW TO GET FAT.

It is a striking fact that most persons want to weigh more than they do, and measure their health by their weight, as if man were a pig, valuable in

proportion to his heaviness. The racer is not fat ; a good plough horse has but a moderate amount of flesh. Heavy men are not those which experienced contractors employ to build railroads and dig ditches. Thin men, the world over, are the men for work, for endurance ; they are wiry and hardy ; thin people live the longest ; the truth is, fat is a disease, and, as proof, fat people are never well a day at a time, — are not suited for hard work. Still, there is a medium between being fat as a butter-ball and as thin and juiceless as a fence-rail. For mere looks a moderate rotundity is most desirable, to have enough of flesh to cover all angularities. To accomplish this in the shortest time, a man should work but little, sleep a great part of the time, allow nothing to worry him, keep always in a joyous, laughing mood, and live chiefly on albuminates, such as boiled cracked wheat, and rye, and oats, and corn, and barley, with sweet milk, and buttermilk, and meats. Sugar is the best fat-tener known.

Some years ago there was a very remarkable man in Wall Street ; his name was on every tongue throughout the country as “the man who made paper,” that is, signed other men’s names to notes payable to himself, and sold them to banks, bankers, and moneyed men in the street at large discounts. Most of the purchasers knew the names were forged ; but tempted by the heavy discounts, and the “maker of paper” being known to take up his notes always before they were due, the ball rolled

on and up to hundreds of thousands. It was stated on oath at the trial, and corroborated, that he always had the headache, and that he was never seen down-town without a cigar in his mouth; always thin, always complaining. He was sent to the penitentiary — was so faithful to the laws, and so attentive to his business, and withal so reliable, that a clerkship or some easy berth was given him of a very quiet, sedentary character. In the second month of his imprisonment he had gained fifteen pounds in weight. He was never allowed to smoke.

Within a year a man was charged with some infraction of the laws, and was sent to prison to await trial, without the knowledge of his wife, to whom he had just before been married, after a short courtship. In about three months, she ascertained where he was; and, on being shown to his cell, she at first did not recognize him, he had “fleshed up so.” These are cases among ten thousands of others which could be narrated, where persons have grown fatter on going to prison; the rules of prison-life fully accounting for the fact. They do nothing but eat and sleep. They eat regularly of plain meats and coarse breads.

From all the statements made, the conclusion is undeniable that a safe, healthful, and sure method of increasing flesh is to live a quiet, in-door life, sleep a great deal, eat regularly of plain meat and coarse breads, or any of the grains named, cracked in pieces, boiled well, and eaten with milk; keeping the system cool by the use of cold water, and

maintaining a daily and free action of the bowels, which last is pretty sure to follow a diet composed mainly of coarse breads and cracked grain ; because chemistry has demonstrated that the most nutritious and strengthening part of corn, oats, rye, barley, and wheat are in the outer part, in the shell or bran, which is unfortunately separated from the inner portion, giving us the pure white and comparatively innutritious flour, while the most healthful and invigorating part, the bran, or outer shell, is thrown away, or given to hogs, horses, and cattle.

CHAPTER IV.

HOW MUCH TO EAT.

THE question of how much one ought to eat is perhaps one of the most frequent inquiries made of a physician ; but the reply depends on an infinite variety of conditions. The answer here will apply to those only who are in reasonable health, and eat but three times a day. For out-door laborers, for breakfast and dinner, the general rule should be, eat as much as you want. But do not eat more than you want, — not one single atom more than you want ; for it is the ruin of life's happiness in multitudes of cases.

The domestic animals are frequently observed to leave food before them, blind instinct being their only guide ; and surely the nobler man, with his nobler reason, ought not to act with less wisdom.

When nature prompts a man to cease eating, it is because hunger is appeased ; as much food has been taken as there are stomach juices enough to take care of. Every mouthful swallowed after that is without one drop of gastric juice to take care of it, to keep it from rotting ; and that single mouthful, being unprovided for, becomes tainted food, and corrupts, to that extent, the whole mass besides ; the whole amount of blood made from that meal is, to that extent, corrupted and made impure, and

mixing with the blood already in the system, as it does in the heart and lungs, the whole mass of blood in the human body is tainted to the extent of that mouthful swallowed which was not wanted, but was forced on the unresisting stomach for the pitiful purpose of "saving" what was not intrinsically worth one single cent. To "save" less than a penny, a rational man corrupts the whole mass of his blood, renders it impure, makes his blood "bad;" and all know that "bad blood" is the very fruitful cause of human suffering, because where there is

BAD BLOOD

in the human body, it is liable to affect injuriously and painfully any portion of the system, or every portion of it, according to circumstances; hence those who eat too much are never well, are always complaining, and legitimately so, because their blood is never pure and healthful, but is always bad, always diseased, always corrupting. While it is a good rule for the man who works hard out-of-doors to eat as much as he wants at breakfast and dinner, he and all others ought to take

LIGHT SUPPERS,

if no special labor has to be done until next day. By a light supper is meant a bowl of mush and milk, or stirabout, or boiled cracked wheat, or corn, or other grain. Better, however, than all these would it be if the supper was rigidly confined to a single piece of cold bread and butter, and one cup

of warm drink, of any kind of herb tea; and it is believed that nothing answers the purpose so well as the common "black tea" of commerce. Some prefer the "green tea;" but to many it is too stimulating, and either causes some discomfort in the stomach, or interferes with the sleep at night. Many who are made restless all night by taking green tea for supper, can use the black tea without any disagreeable attendants.

Very few families have the moral courage to spread the tea-table without some addition to the bread and butter. This addition is in the shape of sauce, or preserves, or chipped beef, or sliced ham; and, at certain seasons, berries and cream are substituted. But it is undeniable that this practice of having "relishes" on the tea-table ruins the health and shortens the life of uncounted thousands; it makes our daughters confirmed dyspeptics before they are out of their teens, and to all who spend most of their lives in-doors, it is the bane of human happiness, is the universal curse of farm-house life, and accounts for the belief of many eminent medical men, that, with all the vaunted advantages of country life, there is more sickness in farmers' families, more diseases of long standing in proportion to numbers, than in city families.

CITY HEALTHIER THAN THE COUNTRY.

The actual truth is that in the largest cities of the world, taking London as an example, the average of human life is longer than in the country.

The reason of this, as far as it relates to farmers and other laborers, is, that at the close of the day they are tired ; the circulation is weak and slow, the fire of life is low, they feel weary and sad, and very likely hungry. Under these circumstances they eat a hearty supper, which of itself tends to sleepiness, and that combined with the general weariness makes the tendency to sleep almost overpowering and quite irresistible. In addition, there is the almost deathly stillness at night in the country and a sense of loneliness ; these combined, send the farmer to bed almost as soon as he has swallowed his supper, rarely perhaps out of bed later than nine o'clock ; and while every muscle of the body yearns for rest and falls to sleep, the stomach has had a new task imposed upon it, which it cannot possibly perform short of five or six hours, which brings it toward daylight, the farmer's hour for rising, when breakfast comes on, and a new burden is imposed upon the unrested stomach — a burden which it is impossible for it to perform well ; and to the extent this is not done, digestion is not perfectly performed, and the blood which is made out of this nutriment is imperfectly made, — gives out but part of its strength ; the man works with proportioned effort and weariness, while the system is rendered more liable to disease, and is all the time, more or less, out of its natural condition. These effects are not instantaneously induced ; but as silently and as certainly as the snowflake falls, and falls, and falls, until a mountain bank

or avalanche is formed, so certainly will the elements of disease accumulate in the human system by the continued practice of eating which has been described. Such are some of the ill effects of eating late and heartily; and they are wise who will give the subject a full examination, and conduct themselves accordingly.

LEAVE OFF HUNGRY,

is not wise for workers, especially for those who labor out-of-doors, nor for such as use severe muscular effort anywhere; but for women, and for all sedentary persons, for those who are seated a great part of the day, for invalids, and for all who have leisure, of either sex, it is a maxim of incomputable value. Such a habit would add largely to the average length of human life, would greatly ameliorate many of its maladies, and would do very much toward eradicating our national disease, dyspepsia. If an out-door laborer eats to his fill, he soon works it off and out of the system; but those who are indoors most of the time, have not this opportunity, and hence are liable to discomfort and actual suffering.

That we all could be well, and not eat near as much as we do, will perhaps not be denied. We all eat too much. Let the reader be persuaded to make the following experiment, and in the light of it make it the habit of his life on this point. Some day, when you have been helped at the table, stop short off when you have eaten three

fourths of what was on your plate, while you were somewhat hungry ; in half an hour you will feel as if you had eaten quite enough, and you will be no more hungry next morning than you have usually been, that is, from a single experiment of the kind.

At another time eat as much as you want, and within half an hour you will feel as if you had eaten too much, although while you were eating you seemed to have an appetite, and the food tasted well ; still you have a feeling of discomfort, of fullness, of oppression, of heaviness, or some other sensation, which causes the wish that you had not eaten so much, leaving the conviction that you had eaten too much ; and always, when this is the case, the stomach, in a sense, has not room to work ; it is so distended that it has not the power of contraction and motion, which are necessary to the healthful handling of the food ; nor are there fluids enough to dissolve it, with the inevitable result of imperfect digestion and an imperfect blood, wanting in its natural strength, wanting in its natural life.

It is scarcely possible that any person of even a moderate share of force of character and intelligence could practice for a single week the habit of rising from the table a little hungry thrice a day, and then comparing his general feelings of healthfulness with those experienced from the contrary habit of always overloading, and not be so overpoweringly convinced of the beneficial effects as to resolve that for the remnant of his days he would eat temperately, not to his utmost fill at any meal. And

yet, in the face of all this, it would not be safe to say that over one in a thousand readers of these pages will be induced to inaugurate the habit so highly extolled, simply because the animal predominates over the reason, the appetite is stronger than the soul, the body is servant of the propensities and passions; and with all our strength of mind, with all the convictions of our rational powers, we debase ourselves to the lusts of the flesh. One of the most remarkable exhibitions of this slavishness to the love of eating that has ever occurred in human history is an item in the life of one of the world's worthies, who, as to mental power in logic and theology, is without a superior in modern history. He made this quaint confession, "Three times a day I go to the table determined to not exceed; three times a day I come away finding that I have exceeded." Not vouching for the verbal exactness of the statement, the truth embodied is incontrovertible, that the great man who wrote an immortal work had not the mastery over his appetites, and the consciousness of it extorted the frank confession, itself an evidence of a great mind, that he frequently committed indiscretions in eating; and this very fact may have been a main reason for his dying before he had reached his fortieth year: and philosophers, and divines, and great men of all cultivated nations have ever since regretted that he had not lived longer, that he might have given the world still greater things as the fruitage of a grand intellect. He died of small-pox, a disease

which a strong constitution can withstand and throw off; but no constitution can be strong, can have any store of vitality, where a man eats too much habitually.

EATING BY WEIGHT AND MEASURE

is neither wise nor practicable, unless a man is a guide only for himself, because no two persons can be found of like circumstances. Age, sex, season, latitude, condition of the system, employment, all have a modifying effect. Half a pound of food would be quite enough for one person, while another might require a much larger amount. A Scotch gentleman of culture and intelligence spent three years with the Indians in the mountains beyond the Missouri, and, as a pastime, joined with them in trapping animals for their furs. He told the writer that the custom of the tribe with which he associated was to eat but once a day. They rose at daylight, visited their traps, and chased the animals until night, walking and running the whole day, not stopping to eat a morsel; but at night they would eat from nine to ten pounds of meat for supper, as a general rule, then talk around their camp-fires, smoke awhile, then lie down with their feet towards the fire. At the peep of day, they would leave their camps, and trap until night, as before. This was a custom adapted to their circumstances, and which seemed healthful.

A celebrity in Washington city, a kind of Beau Brummel, ate but once a day; and when, by being

invited to an evening party, it was necessary to participate in the feasting, making a second meal to him, he would eat nothing at all the day following, so that he might average but one meal a day. He died not long since, at the age of about eighty years. These cases show the adaptability of the human constitution to different habits, under peculiar circumstances. At the same time, those who pursue a regular occupation of body or brain, and work hard, would do better and live longer by eating three times a day; because, if as much is eaten at one meal as would last until next day, it would be such a load for the stomach that nothing less than absolute rest for quite a number of hours would answer for the proper digestion of the food: like a gorged anaconda, there would be a kind of torpid, inanimate condition of the system, until the load could be worked off.

The inhabitants of northern latitudes eat incredible quantities at a time. Captain Parry weighed the food eaten in one day by a Greenland boy: the amount consumed was ten pounds of bread and meat, a pint of spirits, and over a gallon of water. Sir John Ross says that a full-grown man in those northern latitudes will consume twenty pounds of meat and grease in a day. A Russian admiral states from personal knowledge that a Siberian ate in one day the hind quarter of an ox, twenty pounds of fat, and a proportionate quantity of melted butter for his drink. In order to be able to make a more specific statement, the Admiral

Saritcheff sent for this man with the determination of weighing the food he might eat in a day, but he had taken his breakfast already ; however, he sat down to a second meal, and ate twenty-eight pounds of thick rice porridge with three pounds of butter in it. Incredible as these statements may appear to us in our temperate latitudes, they are undoubtedly true. These shiftless people have sometimes to pass days together without a particle of food, and thus, when they do get a supply, must not only make up for lost time, but must also take in a quantity which may last the several days ahead which may intervene before they can obtain another supply of food. It must be taken into account, also, that in those regions of eternal ice and snow, where the thermometer often falls to sixty degrees below zero, and where they have no stoves or furnace-heated apartments, with double windows and weather strips, an immense amount of carbonaceous food must be consumed to generate the amount of heat requisite to maintain a living temperature.

As has been stated, a man may live for two weeks on one egg a day, for food and drink ; so that the question of how much to eat, whether one pound or thirty at a time, depends altogether on the circumstances of the case. At the same time, the reader will desire some more specific statement, from which may be derived practical information as applicable to his own case. In this connection, it may be interesting to know how much a man

should eat by measurement, who is of average size, and in reasonable health ; but even this depends upon the fact whether he is a worker or an idler. It is very necessary to determine these points with great accuracy, because, when the government has to feed a thousand or fifty thousand a day, — some soldiers, some laborers, and some prisoners, or poor-house inmates who cannot work, — it is important, in order to avoid immense and useless waste, as also to preserve the health and strength of the different classes, to know with considerable precision, even to an ounce, how much each class of persons requires.

The element of food which is required to sustain the body and give strength for work is called albuminate, as before stated ; and the quantity eaten in one day should contain a full quarter of a pound of albuminate for a day laborer weighing a hundred and forty pounds. Some articles of food contain more of this principle than others. Lean meats and fish, and pease and beans contain a large amount of albuminate ; fruits and vegetables have but little, but they have a great deal of the warming element, carbon, which is as necessary to life as the other ; hence the wisdom of eating different kinds of food at our meals : meats to give strength, vegetables and butter to give warmth.

HOW MUCH TO EAT IN A DAY.

As an average-sized laboring man must have a full quarter of a pound of albuminate every day, he

would, in order to obtain this, have to eat a pound each of roast beef, potatoes, bread, milk, and fruit ; but in this there would also be found enough carbon or warmth to answer the wants of the system, or a pound and a quarter ; that is to say, an ordinary day laborer by eating five pounds of meat, bread, and vegetables, or mixed food, would supply his system with a quarter of a pound of strengthening elements, and a pound and a quarter of warming elements. But in the food above named there would be also a small amount of salts, which would be represented by the ashes if it were burned up ; this portion of salts, although containing no warmth or strength in itself, is yet necessary to be combined with the carbon and albuminate in order to enable them to give nourishment to the system.

PRISON FARE.

In some of our state prisons about four pounds of solid food are allowed each man every day ; while emigrants on ship board have two and a half pounds of solid food daily, not requiring as much as day laborers, as, instead of working, they are lounging about the vessel, or sleep, consequently make but little waste. In the American army each man is allowed four pounds of solid food, with tea and sugar, and every few days some extras.

DIET FOR THE SICK.

In some hospitals, patients who are reasonably well have one pound of bread and half a pound of

meat, with some tea or gruel, or, as in England, some beer. To persons not so well, the daily allowance is three quarters of a pound of bread, and a quarter of a pound of meat. Hence it is seen that in answer to the question —

“HOW MUCH MUST I EAT?”

there is all the difference between one pound of solid food and six pounds, and that a man can sustain life for weeks, if he is very quiet and still, on an egg a day, which is but two or three ounces of food. In the celebrated case of

LEWIS CORNARO,

an Italian, the specific amount of solid food which he allowed himself each day was a scant quarter of a pound of albuminate and a pound of carbon.

It is said, and generally credited, that this man, a nobleman of fortune, had so abused himself by riotous living, being a drunkard and a glutton, that at the age of forty years his physical condition was such that medical men considered his case hopeless; that he could not live under any circumstances; and that therefore he might as well live as he pleased, and enjoy himself the best way he could for the short remnant of his days. Some accidental circumstance caused him to try the effects of a regular diet, upon which he seemed to improve, and, being encouraged thereby, he persevered in the system marked out, with the result that he recovered his health, lived an exemplary and useful life, and

died lamented by the public at the age of nearly one hundred years.

The answers to the question how much to eat, depend so largely on the circumstances of age, sex, season, latitude, and employment, that it would be impracticable to name any amount as applicable to the majority of any class of persons; in fact, it is one of those questions which each man should aim to answer for himself, that answer being founded on his own close observation and sound judgment. The following rules, however, will perhaps meet all cases as to general habits:—

1. Eat at regular specified times, and at no others.

2. Hard workers, especially those who are most of the time in the open air, should eat as much as they want at breakfast and dinner.

3. Those who are in-doors most of the time, as women, literary men, and students, should never eat full as much as they want. This would be a safe rule for all sick persons also.

SUMMER DIET.

As the object of eating is to sustain the strength, and to keep warm, carbonaceous or warming food is not as much needed in summer as in winter, any more than as much fuel should be burned in warm weather as in cold. And as carbonaceous foods comprise fats and fat meats, and sugars and starches, in the form of buckwheat cakes and molasses, butter and oils, reason dictates that these should be spar-

ingly used in summer time; and Nature, by her instincts, blind though they be, yet unerring, prompts to the same abstemiousness in the use of these articles, and, as if afraid to leave us to ourselves, she takes away our appetite for them, and craves in their stead, more yearningly, as the heats of midsummer come on, the cooling vegetable, and spinach, and fruit, and berry, and melon; and not only so, but has, in her parental beneficence, arranged that these shall succeed each other in their season, with their delightful variety. The berry and the melon have no carbon at all, and most of the fruits have but a trace; and if man in his wisdom, even with the light he has, would but eat on the principles indicated, he might rid himself of a large share of summer diseases. But we resolutely shut our eyes against the light, and ruthlessly and recklessly pander to our passions and our appetites, to our own undoing.

The most casual observer has noticed in himself, and as to others, that as the winter disappears and the spring opens, the appetite begins to abate. As we enter the dining-room and scan the spreading of the table, a feeling of disappointment or dissatisfaction passes over us, which is too often expressed by a frown or a scowl. The reason is, our appetite is not waked up; Nature seems to whisper that the food before us has not the elements now needed. It is the same bread and butter, and potato and roast beef; but we have no craving for them. On a cold winter's day we would have eyed them with

peculiar satisfaction, and would have sat down to the table with pleasurable expectancy ; but now we would almost as lief leave the room, but for form's sake we sit down and eat, but with no avidity. This goes on for several days with abating strength, and perhaps several undesirable feelings or sensations, or, in other words, symptoms ; and the phantom begins to arise that something must be wrong in the system. We are sensible that we have no appetite, that is, in comparison with what we have had, and we straightway conclude that something is the matter with us, and, bringing to remembrance that when we had a good appetite we were well, the conclusion is hastily adopted that the reason we are not well is because we have no appetite, and that if we had an appetite we would be well ; and, pursuing the false train of argument and conclusion, the opinion is settled upon as an undeniable fact, that we must take something to give us an appetite ; and we begin to " take " right vigorously. We take " dinner pills ; " we " take " a drink ; we take some tonic, some bitters ; we take anything and everything that promises the desired result ; but the result is never reached, because the argument is founded on a fallacy palpable enough for any one to see. We are fighting against Nature, who is attempting to diminish our appetite while we are doing all we can to increase it.

SPRING DISEASES.

As the weather gets warmer, less food is needed to keep the body warm ; we, in our blindness, endeavor to keep up the same heat, to burn as much internal fuel in July as in January. If we do eat as much, the system cannot appropriate it, it is rejected, it is cast out ; but in making the effort to cast it out, natural force is expended which ought to have been saved, weakening ourselves unnecessarily while we were weak and languid before ; and these were the very feelings which prompted us to be doing something to make us feel better, to improve our general condition, and to increase our strength. The means we used were to force upon the stomach much larger amounts than were craved, thus imposing upon that much abused organ the additional labor, not only to expend the strength of the system unnecessarily, but to cause irritations, and fevers, and inflammations, which bring wreck and ruin to thousands every spring and summer, — the deaths in the warm months being nearly double those in the cooler ones of October and November. Health increases in the autumn. The health, and strength, and bodily enjoyment of all communities increase as the weather begins to cool in the first days of October ; the appetite gradually improves, because Nature sees that as the weather is getting cooler outside, there must be more fuel consumed within, and she instinctively calls for more food ; and the strength increases proportionably ; we gain more

flesh, and with it come new hopes and new ambitions, and a new power of action. Hence it is an indisputable physiological truth that if the instincts of Nature were yielded to in the spring; were cherished in her desire to take less and less food as the weather grows warmer, as they are yielded to in the autumn in taking more, a very large amount of the diseases of spring and summer would be avoided. The great practical lesson to be learned in reference to the subject, a question of health and disease, yes, in multitudes of cases a question of life and death, is simply this: as the winter passes, and the balmy spring-time comes on, do nothing to increase the appetite; eat no more than is called for; do not be uneasy because you have little or no relish for your food; eat less and less every day. The very best way to increase your pleasure of eating is to change the quality of the food; use articles less carbonaceous, less warming; send from your table the pork and bacon, and fat meats and oils, and sugars and starches, the sago and the tapioca pudding, and the dumplings and the rich pastries; get hold of the early "greens," the spinach, the salads, the turnip-tops, the radish, the early berry and the early fruit, and lean meats; pay increasing attention to the cleanliness of the skin; be more in the open air, sleep in better ventilated rooms, let your windows be raised higher at night, and your inner doors be left wider open.

KEEPING LENT

strictly, without the dispensations usually granted, is founded on a wise physiology. If all persons for a month in early spring were to abstain from all meats whatsoever, as the spirit of the doctrine of Lent requires, it would add greatly to the health of communities, by enabling the system to throw off the impurities of the body acquired by the hearty eating of winter, would cool off the heated blood, and thus destroy the germs of spring and summer diseases; and thus is it that the proper practice of the precepts of religion promotes not only the spiritual but the physical health of man. These are simple measures; they are practicable, cost no money, and are available to all; and if heeded in a rational manner, death would be kept from many a dwelling, and life-time sorrows would be lightened in many bosoms.

CHILDREN'S EATING.

It is a painful fact that the foundations of life-long dyspepsias are laid in childhood, leading to another truth of terrible significance, — a truth carefully educed by scientific men of all cultivated nations, — that, in a very large proportion of cases, the seeds of consumption are sown in the constitution while the young are in their teens. Consumption is a disease of debility; and just as soon as the digestion becomes impaired, the requisite strength is not withdrawn from the food, debility begins, the

power to resist disease is weakened, colds are easily taken and renewed ; soon it is seen that before one is cured another is taken ; they run into one another, a continued cold, a continued cough, the beginning of the end.

Errors of eating on the part of children have a more serious bearing on the constitution than in grown persons, because they have less vitality, less power of life ; these errors lead to a great variety of diseases, and it may answer an important purpose to state the diseases which are associated with the stomach and its connections ; all of which may be prevented by a proper attention to the eating, and may be cured in the same manner. It may be that when parents see what a long list of maladies can be avoided if a wise attention is paid to the diet of their children, they may be stimulated by fear and affection, as well as by a sense of duty, to give special supervision over their children, in connection with the food they eat.

THE DIGESTIVE ORGANS

commence with the entrance of the lips ; next the mouth, throat, stomach, intestines, and kidneys ; their functions being, first, to prepare the food for the stomach, by chewing ; in the stomach it is converted into a fluid mass, which, passing along the track of the bowels, undergoes certain changes, and in this changed condition the nutritive portions are transmitted to the parts requiring them ; while the refuse — the waste — which cannot be

used in any way, is passed out of the body through the kidneys, and in the daily action of the bowels at the water-closet and privy. The following are

DISEASES OF DIGESTION.

Appetite, no.
Appetite, excessive.
Appetite, depraved.
Appetite, perverted.
Biliousness.
Cholera morbus.
Colic.
Costiveness.
Diabetes, or excessive urine.
Diarrhoea, or loose bowels.
Dysentery, or bloody flux.
Dyspepsia, or indigestion.
Fistula.
Gall-stones.
Gravel.
Headache.
Heartburn.
Jaundice.
Nettle-rash.
Piles.
Sick-headache.
Sour stomach.
Summer complaint.
Toothache, in many of its forms.
Throat diseases of several kinds.
Worms — round, tape, pin.

Reckless, indeed, must be those parents who can be indifferent as to their children's food, after they have learned that such a formidable array of maladies can be prevented from entering their households by a proper supervision of what is placed before their children at the family table.

REGULARITY OF CHILDREN'S EATING

is absolutely imperative, if we wish them to grow up in good health. The point on which the exceedingly injurious effects of irregular eating depends, has already been alluded to. Order is Heaven's first law. All things move better, safer, and more smoothly, if regularity and system be everywhere observed. If the stomach be too long without food, the child becomes so ravenous that it is sure to eat fast and over much, bringing on convulsions in very many cases.

If one meal is followed too soon by another, the certain result is either vomiting or acidity, tending to induce violent attacks of loose bowels of all grades, from cholera infantum to the most malignant forms of Asiatic cholera. After a child has been weaned, and up to seven years of age, there should not be a greater interval than five hours between the regular meals of daylight; but from weaning up to ten years, it would be better between breakfast and dinner to allow a single piece of bread and butter, or an apple, and the same between dinner and supper, or sundown. Those who would avoid the disagreeable surprise of

being waked up in the middle of the night by the cries and sufferings, and oftentimes dangerous maladies of their children, will make it imperative that after four years of age they should not be allowed to eat anything whatever after supper, which should never be later for them than three or four hours before bed-time. After ten years of age, children can be very readily trained to take nothing between the three regular meals of the day.

FORCING CHILDREN TO EAT

would seem to be a barbarity, and yet very many sensible and affectionate persons educate their children from very early years to this same unwise and always injurious act, by teaching them that they must not leave anything on their plate, on the plea that waste is always wicked. But it is a much greater waste to crowd a mouthful into the stomach when there is no appetite for it, than to give that same mouthful to some domestic animal, to pig or poultry, or the faithful dog. If no such animals are about the house, let such remnants be given to the poor, or buried in the ground to enrich the soil, or, if thrown in the garden, some insect or bird would make a glorious feast upon it. In either of these ways, every particle would be utilized; but when crowded into an unwilling stomach, it not only cannot be applied to the beneficent purposes named, but it is a positive physical injury to the child, and endangers its life, because, as has been already stated, when there is no sensation of

hunger, it is because there are no juices in the stomach to take care of any single half-mouthful that may be "forced" into it by being swallowed without a relish, or inclination, or appetite ; and in all such cases it undergoes no natural, healthful, useful change, but remains a foreign matter, to irritate, and inflame, and shock the whole system, ending many times in deranged stomach and bowels, convulsions, cholera morbus, and death.

A CRYING PARENTAL FOLLY

is to compel a child to eat an article of food for which he has no appetite, nay may have a positive disgust at the very thought of swallowing the hated mouthful. Parents do this from the very best of motives, thinking that it would add to the child's health or comfort in after-life to have learned to eat the article in question.

It is just as great an outrage to compel a man to eat a piece of fried snake as to compel a child to eat a piece of fat meat when his stomach revolts at it ; the inhumanity of it is greater, because the man may defend himself, while the child, all unresisting and helpless, is made to comply by the one whom he loves best in all the world.

The instincts of childhood should be held in a measure sacred to them ; and it may be safe to say that what nature craves, the body has use for ; what nature abhors, the same body has no use for.

Every man is at liberty to ride any hobby he chooses to death ; if he wants to ride it to his own

undoing, he may have the right to do it, with some restrictions; but to "have a theory," and kill his child in the attempt to carry it out, to make it practical, is not to be applauded.

If a man wishes to learn his child to relish any article of food which he does not relish now, a safe method of bringing it about is to take a long walk or ride, far from any human habitation, and after the child has been some time complaining of being very hungry, present the article in question to him, and let him taste it if he will, and in a little while taste it again; in this way he may be educated to love it in a very short time. The conclusion of the whole matter is this: to compel the swallowing of a mouthful of food against the appetite or inclination for it, is certainly a wicked waste of that much; it gives no healthful nourishment to the body, is a violence to nature, a shock to the system, and invites loathsome, painful, and even fatal maladies.

YOUNG LADIES' EATING.

Young ladies' boarding-schools are among the greatest afflictions of this country. Now and then one is found which is conscientiously conducted in its various departments; but their influences, as a class, are pernicious to mind, morals, and constitution. It is to the last named the reader's attention is specially directed.

A gentleman of great wealth sent a much loved daughter of seventeen to a boarding-school in the East. The cookery, the quality and quantity of

provisions, were such as to drive a number of the pupils to almost desperate practices ; the gnawings of hunger were often such that they banded together to have other provisions brought secretly to the house ; the result was, that eating something at the regular meals of the establishment to save appearances, and also their own provisions " between times," the stomach had no rest, and became so dyspeptic that study was a misery and a mockery ; and years after, when the lady became a mother, she bewailed to the writer the misfortune that had befallen her, and from which she was still suffering, and had no other prospect than carrying it with her to her grave ; not only was her own constitution impaired, but the taint of it was passed over to all her children. The point sought to be impressed here is the too frequent eating ; it will inevitably destroy all healthful action of the stomach ; the result of which is bad blood, and the long catalogue of ailments which of necessity follow in the train, and which were enumerated a few pages past.

At boarding-schools a table is set which may be good in quality, and answer very well for a single occasion ; but the insufferable sameness of dishes for weeks and months together, which is constantly observable in most of these establishments, soon falls upon the appetite, and the pupil many a time leaves the table without being able to eat scarcely anything. The teachers may prepare what they think is suitable, but it should be remembered that in these schools persons of different temperaments

and tastes, coming from different sections of the country, cannot be expected to relish the same kind of food; and to expect them to eat what they cannot partake of without a species of compulsion is unreasonable. In any collection of young ladies there may be peculiarities, called, by medical men, "Idiosyncrasies," which they can neither dismiss nor control; and in schools, as well as in other public institutions, the head managers soon become unsympathetic, cold, calculating, and heartless, and in just that proportion are unfit to have control over the tender consciences and feelings of the young girl just from under a loving mother's eye. At home, parental affection respects these peculiarities of appetite, and wisely humors them. Whatever is placed on the table of a boarding-school must be eaten or let alone; and the pupil is forced to leave the room hungry, the only alternative being to obtain food elsewhere; and the selection is sure to be unsuitable, as it will very certainly be in the shape of cakes, candies, and other sweetmeats, which clog the stomach, overtax it, and destroy its powers for life. The truth of the main statement, that at young ladies' boarding-schools the food is not in sufficient quantity nor variety to answer the needs of the pupils, will be readily substantiated by the testimony of nine girls out of ten who have lived in these establishments.

This subject becomes a matter of very grave importance when it is taken into account that the consequences of becoming a dyspeptic at school are to

be felt by the future husband; by children yet unborn, who are, as a result, to be brought into the world with impaired constitutions, with hereditary maladies, which may be handed over to remote generations!

A SICK WIFE

often brings pecuniary ruin to the ambitious young husband, who, striving to get ahead in the world, finds that his ailing companion not only keeps him from his business, but, by the anxieties in reference to her health, his mind becomes incompetent to attend to his affairs as ought to be done. In addition, the wife being an invalid, servants take advantage of the situation, idle away their time, neglect their duties, waste provisions, and soon the house is no home; discouragement and despondency take the place of the cheerful hopefulness of the marriage day; excitements are sought outside, to drown the forebodings of the hour; unsuitable companionships are formed; bad habits are gradually fallen into; estrangements and recriminations ensue; mutual confidences cease, and domestic, social, and pecuniary ruin follow in the train. Who shall deny that histories of the kind are constantly being made, like the one narrated, as the result of the discouragements and drawbacks of a sickly young wife?

MORAL EVILS OF BOARDING-SCHOOLS.

If affectionate parents need additional reasons for hesitating to send their daughters to a boarding-

school, they are found in the direction of an impaired morality. It is not possible to prevent young ladies, who are thrown together in the equal companionships of the boarding-school, from relieving themselves of its tediousness and sameness in unoccupied hours, by reading novels, by studying rivalries in dress, and talking of the young men of their acquaintance.

NOVEL-READING.

The pernicious effect of reading novels on the mind of school-girls need not be argued. No intelligent mind can doubt it for a single moment; for, besides unfitting them for the details of dry study, false views of life are inculcated, and erroneous ideas as to morals and religion, — ideas not in accordance with the teachings of the Sacred Volume, — and such are everywhere to be found in works of fiction in every age, perhaps more especially in our own. It is impossible for a teacher to keep novels out of the boarding-school, because it is a rule of fear, and they will be smuggled in: it is useless to deny this proposition.

FINE DRESSES.

Human nature must be changed, if the subject of dress should not employ a large portion of the thoughts of young ladies at school. In Germany, the best girl schools require that all shall be dressed alike, in pretty much the same fabrics, although various in color, and make, and pattern; the daughter

of the mechanic, the farmer, and the merchant dresses as do the children of the titled names of the country. With us, all dress to the extent of their means; and when a girl finds her school-mate attired more expensively than herself, she becomes at once dissatisfied; she allows it to be a source of constant mortification; a feeling of inferiority takes possession of her; corresponding representations are sent home; too indulgent parents strain a point; and the result is, that in the matter of dress alone, more money is often required than would pay the entire expenses of tuition, drawn, too, from resources at home which are not honestly adequate. Thousands of struggling parents know well how they have practiced painful economies and even humiliating self-denials for many months, in order to meet the demands made upon them; and thus are foundations laid for that unreasoning extravagance in dress which is to be followed up for life, and inculcated upon the children yet to come, — extravagances which are constantly bringing families, first to “management,” then to subterfuge, to equivocal practices, to downright dishonesties, to shame, to degradation, and to unmistakable poverty.

TALKING ABOUT THE MEN

is among the immoralities of the female boarding-school. It is natural to do so. It is proper for young women to do so. But to such things there should be certain “metes and bounds,” beyond which young ladies should not go; but beyond

which, very far beyond, they do go, because it is "forbidden," which constitutes it a sufficient reason to be indulged in, in the present state of human nature; and the more it can be indulged, the sweeter it is. This is so, because the government is one of hard, dry restraint; of cold duty, instead of love. It is very true that these same things transpire at home, immediately under a mother's supervision, but nothing like to the extent above referred to, for there is always the angel of a mother's love hovering over home, of a mother's interest, and happiness, and affection; these restrain the girl, while she imperceptibly gathers from her parents' influences certain feelings of propriety, of delicacy, of purity, which are not found in the school-room or under a stranger's roof.

BROKEN TIES.

There is one consideration which ought to overshadow all the influences that prompt to the sending of young girls who have mothers away from home to obtain an education, and which undoubtedly overbalances all the supposed advantages of such a step: it breaks the family tie. All our instincts rebel against the separation of members of the same household. If kept together until marriage, children naturally grow up lovingly; the ground for associations is laid, the very remembrance of which throws a hallowed influence over all after-life, making us look back to our father's house and its surroundings with the purest of all satisfactions; im-

elling us, too, to cast our eyes, and hopes, and aspirations toward that great future when we shall be reunited, a whole family in heaven ! It is altogether impossible for children to have the same pure and loving affection for one another which they ought to have, and would have if kept together, and which they will not have if separated for many months at a time, — often separated. In addition, parental influence is lessened ; the child's love is chilled ; affections are divided ; new attachments are formed ; and, to a great extent, the daughter is weaned from father, mother, home, and all the sacred influences which should be inseparable from it. The household will be soon enough broken up under the most favorable circumstances, without our hastening the sad event long years before the time, thus losing these long years of sweetness, and substituting for it the sacrifices and solitudes inseparable from a daughter being away at school, among strangers.

MAIDENLY PURITY.

There is a maidenly reserve, and delicacy, and sweetness, and purity attached to girls who are kept under a mother's eye daily, until marriage, which never can belong to those who are brought up in boarding-schools, simply because there is an indefinable something in a mother's teachings, a mother's magnetism, which a stranger can never possess. Besides all this, the mother is the natural educator of the daughter ; and if we change that

relation, harm must follow, which is irreparable, not merely in one, but in many directions.

And lest what has been said might not be enough to decide the parent who reads these lines against the serious error of sending a daughter away from home to be educated at the very period when the pure white page is just opened for life-time impressions, a single fact may be stated which means more than the superficial imagine, because it carries with it considerations not altogether proper for this place ; and it is this, that medical men who have large experiences in connection with these establishments, and who are to a great extent, and necessarily, made the father confessors of those whom they attend professionally, have not failed to say that boarding-schools for girls and young ladies, as a class, are ruinous alike to the physical health and moral purity of those who attend them, as a general rule. But even with this, the author tremblingly leaves the subject, because parental pride and ambition come in and whisper something about improved manners, and acquaintanceships, and attachments, which may shape the future life advantageously ; meaning thereby that by going to a boarding-school their daughters may form associations which may lead to a more desirable marriage than if they remained at home ; forgetting for the moment that the trial and risk are great enough of giving away a daughter into the hands of one whom, and whose family connections, you have known from childhood ; but how much greater must they be to put that

daughter out of your protection, and beyond your authority, and into the power of a young man of whose very existence you had no knowledge until within a year, a month ! Better, safer far, is it to bring up a daughter who in her innocence, and purity, and culture, shall be worthy of any man, and then let her take her chances at home, from among the families you have all known from childhood ; for let it be remembered, that no young man's qualities and character can ever be so well known, so fully appreciated, as by the neighbors, and friends, and associates among whom he has been brought up. Long years of personal association must pass before you can as well understand the character of a stranger, if ever, as of those who have lived in the same neighborhood, the same village, or town, or city.

THE GIRL AT HOME.

It is a perfect martyrdom for a mother to see her children growing up under her very eyes the victims of painful maladies or of slowly fatal diseases ; the dreadful neuralgia, the agonizing asthma, the sure killing consumption, — its hoarse, hollow cough, every sound of which, from the most distant room, strikes a pang into the mother's heart, and how she listens to it in an agony of foreboding through the livelong hours of the weary night, — and the clammy, grave-like night-sweats, in the progress of weary weeks and months ; how she witnesses them morning after morning sapping away the very life itself ; to know that there is no remedy, and that

the malady, like a mountain avalanche, moves slowly onward, and that no power short of that which made all worlds can arrest its resistless progress, not for a minute of time ; and yet

CONSUMPTION

is sown in the constitution during the teens, while the child is under the parental roof, in three cases out of four, and which was avertible. The same may be said of dyspepsia ; the foundation of most of the cases is laid while children are at school, under parental control ; and it is done through

ERRORS OF EATING

at home, which are gradually fallen into and practiced, until imperceptibly diseases creep in and burrow in the system secretly. In very many cases the constitution is undermined, and the health of the whole body irreparably impaired, before any danger is perceived ; and then, when too late, the parents wake up to the impending calamity, and spend large amounts of money in seeking medical advice from eminent men, in trying the benefits of this system of practice and that system ; then long journeys are taken, first at home and then abroad, but how vainly, many, very many know, and, with breaking hearts, are willing to acknowledge ; for at last, the loved ones come home only to die.

THE INSIDIOUS ENEMY.

Impairments of the constitutions of our children usually foreshadow themselves in an irregularity of appetite at breakfast, generally no appetite at all. When this is first observed, there is no disease, but simply a functional disorder, a temporary derangement of the stomach, which does not even require medicine, and is very easily remedied. Thus: when a child is noticed to eat but very little breakfast, simply require that nothing whatever be eaten until the regular dinner time; let dinner be confined to a piece of bread and butter, a piece of meat, one vegetable, and half a glass of water, and nothing else, nor anything more until tea time, which should consist of a single piece of cold bread and butter and a cup of any kind of warm drink, perhaps half and half of boiled water and boiled milk, mixed after the boiling, with sweetening to suit, and not a particle besides until next morning.

The hour for retiring should be ten o'clock in summer and nine in winter, leaving the bed at the end of nine hours at farthest. An hour after dressing has been completed, a breakfast should be taken of one cup of weak coffee or black tea, one piece of bread and butter, and one piece of meat, or a soft, boiled egg, or a dish of berries in their natural raw state, without cream, or milk, or sugar; or as much of the above as there is an appetite for, not urging to eat a mouthful beyond the inclination.

A while after breakfast, let several hours be

spent in the open air, in walking or riding with lively companions, or in shopping if in the city; if in the country, and the weather and season are suitable, the same time spent on horseback, or in visiting a neighbor's family several miles away, or in berrying; in short, in any exhilarating occupation or employment in the open air; and in proportion as there is a pleasurable object in view, the advantages will be very greatly increased. Let the dinner be the same as on the preceding day, with one or two hours of out-door activities in the afternoon, whether in work or games, or other agreeable pastimes, with tea as on the preceding day. Continue this course until your daughter can eat a hearty breakfast in a joyous mood, and then she is well.

CHAPTER V.

REGULARITY IN EATING.

To show on what a little thing human health and happiness and even life sometimes depend, the results of an opposite course, one taken every day in multitudes of families, the following narration may illustrate. The daughter leaves the breakfast table, having eaten little or nothing. The mother notices it with more or less concern, and perhaps makes a remark about it, ending in advising to take something, or perhaps suggests that some more inviting dish be prepared. The child has not eaten, because she is not hungry; and every mouthful swallowed under such circumstances does so much more to insure an attack of sickness within a few days. But the child who has no appetite for breakfast gets hungry enough a few hours later; and the mistaken mother is glad enough to have her eat heartily, with this most deceptive impression in her mind, that hearty eating and health necessarily go together. Thus the real breakfast is taken several hours after the time, with the result that dinner comes before breakfast has been digested, and there is no more appetite for dinner than there was for breakfast; that comes later in the afternoon. And so all

the meals are interfered with, and the system suffers. Perhaps it was the late supper at home, or at a party, which caused the want of appetite for breakfast.

NATURE'S HABITS.

So strong is the inclination of the human system to fall into regularity of movement and action, that sometimes the repetition of a thing for two or three days in succession causes a looking for or a requiring of that thing at the same hour on the next day; and before we know it, a habit may be formed which is to last for life, which is to color our whole subsequent existence for time, and beyond also, as witness the manner in which countless multitudes have been inveigled into chewing and smoking, into opium-eating and unconquerable drunkenness.

If a person living in-doors sleeps to-day at a particular hour, and has nothing exciting to-morrow, he will discover that about the same hour he will begin to get drowsy again; and if yielded to, he will find himself in the regular habit of an afternoon nap, which cannot be broken up without an effort. Thus it is with all, and especially the young: if for a very few days there is no appetite for breakfast, but something is taken an hour or two or more later, it will soon be a common thing to require a second breakfast to be prepared; and, as has just been stated, the regular dinner hour coming on before the stomach has passed the breakfast out of it, it is set to work without any rest, cannot discharge

its duty by the dinner, and it being imperfectly changed into the condition suitable for imparting nourishment to the system, that nourishment is not distributed, proper strength is not given, and very soon there is a falling away in flesh, a decline in general vigor; the spirits become depressed, the whole body has lost its elasticity; its power of resisting the causes of various diseases is lost, and the victim falls an easy prey to maladies more or less painful, dangerous, or incurable. In a short time there is a complaint of cold feet, of being easily chilled; "The least thing in the world gives me a cold;" headaches come on, the appetite becomes fitful; some article of food is wanted, and, if not prepared in an unreasonably short time, it is not wanted, or, if eaten, it "turns sour," or large quantities of wind form in the stomach, and there are alternate gurglings, disagreeable eructations, and unseemly belchings. At other times a scalding sensation is experienced at the little hollow in front, at the bottom of the neck, just at the top of the breast-bone, — some call it heart-burn; to others there is a raw sensation from the stomach up along the centre of the breast to the throat; others have an unmanageable turmoil in the bowels, or wrenching pains. In short, the symptoms which attend the various forms of beginning dyspepsia in the systems of young persons who get into the habit of eating at other times than at the regular meals of families, are endless in their variety and in their combinations; but whatever may be the order of their ap-

pearance, or the nature and changeableness of these combinations, one result is perfectly certain, unless the habits are changed ; and that is a ruined constitution, a wasted life, and a premature death. The time to prevent all this, and at a little cost of effort, is when a child is observed not to want any breakfast ; it is always the harbinger of disease, of something which will endanger, if not destroy life in a few days, or will undermine the system, and lay the foundation of some slow disease which will embitter all subsequent life.

AN INFALLIBLE REMEDY,

in every case, is the prompt, decisive, and persistent action of the parent in carrying out the suggestions on page ninety one.

A BAD FAMILY HABIT,

where children are growing up, is having any eatables easily accessible to the child. If by the opening of a closet or cupboard door, a piece of cake is always at hand, or an orange, or apple, or any other eatable, the temptation is too strong for a hungry child not to avail itself of the opportunity ; and with the suggestion, "It can't hurt me," something is eaten, and the first step is taken to break in upon the needed rest of the stomach, to end in its entire perversion of function, and this to be followed by some one of the long catalogue of ailments detailed on page 76, as the results of a diseased condition of the digestive functions.

It is not intended to advise that no cake or fruits should be kept about the house to offer friends who call, or for other purposes, but so to arrange that these things shall not be accessible to children, whether of nine or nineteen, without very considerable trouble. A parent's duty is to keep temptation out of the way of the young, especially temptations connected with the appetite for eating something. And here is an admirable opportunity of teaching the young to

ACT FROM PRINCIPLE.

It would be going only half way to keep little delicacies under lock and key, even if that lock and key were the injunction never to taste them without permission; but explain to them the object of the restraint; show them plainly how such things lead to hurtful habits, which, if persisted in, may lay the foundation for sickness and suffering, and may even endanger life. In this way an important advance may be made in educating the young to act from principle; and when that is done, the child is safe, and, if mature life is reached, will be influential, honorable, and useful.

PERILS OF EATING.

A very bright, handsome, gentlemanly youth of ten, the pride of a widowed mother, known to the writer, died after a few hours' illness in consequence of eating a number of hard-boiled eggs. Children have often been thrown into convulsions

from eating largely of some one thing, which perhaps they had not tasted for a long time. A safe injunction for all children is, not to eat much of any one thing, however plain and simple or familiar it may be. Ice-cream is a luxury, and a safe one, if eaten leisurely, in moderate quantities ; and yet a young girl from one of the interior counties of Pennsylvania died in an hour or two after eating ice-cream, the thirteenth saucerful.

It may be often noticed at the family table that a child will be asked to be helped to some particular dish several times in succession. If indulged, the child will be either taken sick, or, foundering itself, will not touch it again for months or even years. On this point parents ought to exercise a watchful care, and never help a child

TO A THIRD DISH,

and not even the second if under a dozen years. It is far safer to direct attention to some other dish. But after all, it should not be forgotten that the more frequent cause of disease of all kinds in children under age is

IRREGULAR AND FREQUENT EATING.

And next to that is allowing them to eat heartily of anything, under any circumstances, later than sundown, except at a children's party, when perhaps the exercise of the body and the exhilaration of the mind, in connection with going home after it is all over, would antagonize the ordinary effects of a late and hearty meal.

CHAPTER VI.

HOW TO EAT.

THE common vice of our people in the United States, in both town and country, in city and village, among old and young, rich and poor, is rapid eating, when the stomach, like a dark bottle which is attempted to be filled with a funnel, gets full, and overruns before one knows it. There are two ill effects from hasty feeding; the food expands considerably, both by increased warmth and by its being divided and liquefied, so that if the stomach is not full when one ceases to eat, it will be full enough in a very few minutes by the heating and liquefying process; thus it happens when a person is called from the table, he may feel as if he could very easily have eaten more, but if detained a very few minutes, he comes back, feeling that he does not want to taste another particle, and oftentimes expresses himself impatiently about his dinner being "spoiled," when the truth is, his food has been enlarged in bulk by the necessary preparation which it has undergone, thus making the stomach full enough for all healthful purposes, and full enough for comfort. If a meal is eaten with great deliberation, this expanding, heating, liquefying process begins and keeps pace with the meal, and the man does not feel like a gorged anaconda. The English

people thus eat, as a nation ; they give themselves time to enjoy their food, to experience the pleasure of its taste, and make eating a gratification ; while we Americans, in multitudes of cases, look at it as a thing to be gotten through with, — as a task which has to be performed, and the quicker the better.

Healthful digestion is sometimes described as a churning process ; the muscles are in continual motion, pressing the food forward in a kind of circular direction ; and to do this, there must be room for a “purchase,” — a point to push from and an open field to push to, so that it is easily seen that when there is an unnatural distention, there is no more room for work than for a man so beset by a crowd that he cannot move his arms from contact with the body. There being no room for work, the food cannot be properly manipulated, is kept longer than nature designed, becomes sour, generates wind ; this further increases the distention ; and the result is long hours of uncomfortableness, which dyspeptics, and heavy feeders, and rapid eaters have intelligent experience of. One avenue of relief under the circumstances is an unnatural heat ; a fever is created which causes an evaporation of the more watery portions of the mass, while the wind generated is gulped up in indecent belchings, or is passed off in another direction, the whole “transaction” so prostrating the system and exhausting its power that the glutton is fit for nothing during the remainder of the day ; the whole body is in too great a state of uneasiness to rest ; the victim

vainly seeks relief in uneasy and fitful movements from sofa to window, from one room to another, alternating with strong potations, which only protract the discomforts, and never cure or remove them.

Another ill result of rapid eating is that the food is swallowed in too large pieces ; time is not taken to divide it properly with the teeth, and hence it requires such a long time to be “ melted up,” to be dissolved, that it begins to rot before it can be passed out of the stomach, and thus all the purposes of eating are frustrated ; and, in addition, not having been acted upon properly and promptly, the odor of carrion begins to be generated, and the breath of the individual is simply disgusting.

CHEW FOOD DELIBERATELY,

because bits of food in the stomach are like pieces of ice in a glass of water : the ice is melted in thin layers from without inward, and any one can see that the pieces of ice disappear with a rapidity proportioned to their smallness, and with the same rapidity is the water cooled. Precisely so is it with the particles of food in the stomach : each one is acted upon on the outer surface by the gastric juice in which it floats ; and if each piece has been slowly and leisurely chewed with good teeth, it enters the stomach so well divided or cut up that it is taken hold of by the gastric juice, and wholly dissolved in a very short time. If in large pieces, it requires such a long time to be dissolved that the rotting process commences as before described.

This putrefaction of food takes place in all cases where it remains in the stomach over five or six hours after it has been eaten, not only with the disgusting results already stated, but, in addition, consequences more or less hurtful, painful, dangerous, and even deadly are sure to follow; such as writhing pains in the stomach or bowels, feelings of oppression, distention, shortness of breath, almost approaching a kind of suffocation or smothering; the stomach is made uneasy by the wind accumulating within it, thus pressing upward against the lungs, interfering with the breathing; and as the heart is enveloped by the lungs, covered over and all around by the lungs, its action is impeded, and it struggles and palpitates, sometimes bringing on convulsions and fatal apoplexies. So much for swallowing large bits of food, as far as the stomach is concerned. Sometimes this much abused organ seems to act as if it had a living, reasoning intelligence; for after vainly striving to manage the food, and not succeeding, it almost seems to make the attempt to thrust it out in anger, to be willing to get rid of it on any terms, by pushing it out of itself into the lower bowel. Thus it is that multitudes have noticed sometimes that what has been passed from them is made up of bits of food unchanged, which had been swallowed many hours before; when such a thing is noticed, it will never fail to be observed that various disagreeable symptoms have manifested themselves; for these bits of food, with their jagged edges and points, cause considerable irritation in

passing over and along the tender coating of the bowels, sometimes making them bleed, and then we have painful and dangerous dysenteries ; at other times they cause great irritation, producing watery discharges called diarrhœa, which if aggravated by the person persisting to keep up, and on the feet, cholera in its most dangerous forms has followed in millions of cases. In multitudes of cases this is the identical cause of children and grown persons being surprised in the night with troublesome diarrhœas, running in a very few hours, in cholera times, into violent cholera. In the case of little children, the parent ignorantly runs to the brandy bottle or to the vial of paregoric, or laudanum, or some wretch's "soothing syrup," which often act with charming rapidity in changing the condition of the bowels, and the young mother blesses the inventor of the soothing syrup as a witch or first cousin to Solomon ; a few hours later the child has convulsions ; in a day or two, water on the brain. There is not an educated physician in the nation who does not know that such is the history of the last sickness and death of multitudes of children every year ; swallowing food in too large lumps, this bringing on an alarming looseness of the bowels, being Nature's efforts to get rid of the offending mass as soon as possible ; but ignorance steps in to interfere with Nature, thwarts her in her wise and kindly efforts, arrests the diarrhœa, and kills the victim.

LET THE CHILDREN ALONE.

Children and hirelings, the world over, are a long time at their meals, and, if let alone, always eat them in uproariousness, in a freedom of conversation and a merriment of mood which is as wise as it is healthful. For many ages in the past history of the world, a jester was an indispensable concomitant of the feast ; as much a part of it as the roasted pig, or turkey, or mutton, or steak, or plum-puddings ; a better exhilarant than wine itself ; and yet there are many parents who are so mistaken in their notions, so bent upon instilling into the minds of their children the staidness and proprieties which even age, with all its accumulated wisdom, would resent at the feast table, that scarcely a smile or a joke is ever permitted. Very many parents, in order to teach their children “table manners,” make it a point to have them take their seats with grown persons, at even four and five years of age, where the poor little things are so hampered with previous injunctions that they dare not even squeak ; they feel themselves bound in adamant chains ; and the dinner table, which ought to be, of all others, a place of gladness and unrestrained mirth, is made a penance and a bore to the joyous heart of childhood. The writer acknowledges to have on one occasion, and as often as thought of since, experienced a sensation of deep sadness in connection with the following incident, narrated literally. A beautiful little girl of five

years, and as sweet as beautiful, was allowed to be taken by the servant to visit a lady whom the little thing was proud and glad to see. The mother knew that the child would be presented with something nice to eat, but parted from her darling with this injunction: "Be sure, my little pet, not to do anything that is not proper." The little child was brought into the parlor and placed on a chair, while the nurse retired outside into the hall. In due time the young visitor was supplied with a delightful apple, healthful, soft, and juicy, which was eaten with great relish. After a considerable time spent in silence, restlessness, and apparent deliberation, the little thing was noticed to be making a desperate effort at some deliverance. At last it came thus wise: "Aunty Harper, do you think it would be proper for me to ask you for another apple?"

To hold such tyrannies over children in connection with their eating, is against all reason and common sense. Let them alone in their eating; leave them to their instincts, to their natural mirth, and joyousness, and harmless chattings; these will prove a more effectual preventive of fast eating than all the parental injunctions of a young life-time. Children should be allowed to eat with children, with their equals, at least in unrestraint; for it prevents excesses, it promotes digestion, insures health, and makes of eating what a wise and kind Providence intended it should be, the means of life and a daily source of enjoyment, pleasure, and happiness.

Let your children alone when they gather

around the family table ; it is a cruelty to hamper them with manifold rules and regulations about this, and that, and the other. As long as their conduct is harmless as to others, encourage them in their cheeriness. If they do smack their lips, and their supplings of milk and other drinks can be heard across the street, it does not hurt the street : let them alone. What if they do take their soup with the wrong end of the fork ? it is all the same to the fork : let them alone.

Suppose a child does not sit as straight as a ramrod at the table ; suppose a cup or tumbler slips through its little fingers and deluges the plate of food below, and the goblet is smashed, and the tablecloth is ruined : do not look a thousand scowls and thunders, and scare the poor thing to the balance of its death, for it was scared half to death before ; it “ didn’t go to do it.” Did you never let a glass slip through your fingers since you were grown ? Instead of sending the child away from the table in anger, if not even with a threat, for this or any other little nothing, be as generous as you would to an equal or superior guest, to whom you would say, with a more or less obsequious smile, “ It’s of no possible consequence.” That would be the form of expression even to a stranger guest, and yet to your own child you remorselessly, and revengefully, and angrily mete out a swift punishment, which for the time almost breaks its little heart, and belittles you amazingly. The proper and more efficient and more Christian

method of meeting the mishaps and delinquencies and improprieties of your children at the table is either to take no notice of them at the time, or to go further, and divert attention from them at the very instant, if possible, or make a kind apology for them ; but afterwards in an hour or two, or, better still, next day, draw the child's attention to the fault, if fault it was, in a friendly and loving manner ; point out the impropriety in some kindly way ; show where it was wrong or rude, and appeal to the child's self-respect or manliness. This is the best way to correct all family errors. Sometimes it may not succeed ; sometimes harsh measures may be required ; but try the deprecating or the kindly method with perfect equanimity of mind, and failure will be of rare occurrence.

The prominent and practical points to be borne in mind in connection with the

HEALTHFUL FEEDING OF CHILDREN,

of all ages, are Regularity, Deliberation, Unrestraint, Cheerfulness.

There are two subjects which, being almost always more or less directly connected with the improper eating of children, may very appropriately be brought in at this place, especially as they are at the very foundation, the very beginnings, of the undermining of the constitution of girls at home, and which unremoved will imbitter the remainder of life physically and mentally.

COLD FEET AND HEADACHE,

are more often complained of in a family of growing up and grown daughters than any other two maladies in the whole catalogue of human ailments. These are more specially treated under their separate heads in my book on "Health and Disease," but they are named in the present connection in order to impress upon the minds of mothers especially that, —

First, no child can be well who is troubled with cold feet; and if the symptom is not removed permanently, such a daughter is pretty certain to die of consumption before she reaches the age of thirty years. Hence, a wise parent will spare no pains to remedy the trouble, for it is a very common beginning of consumption, and it will be difficult enough to remove the symptom in its very earliest stages; but if delayed, it is a herculean task, and is seldom accomplished, trifling as the symptom may appear. Cold feet many times ushers in croup, inflammation of the lungs, diphtheria, scarlet fever, and putrid sore throat, any of which may kill within forty-eight hours; hence the moment a child complains of cold feet, day or night, winter or summer, a wise parent will be alarmed, will take immediate measures to have the condition rectified, and ought not to rest satisfied until the work is done, and the danger removed. No one can be well whose feet are not comfortably warm all the time.

HEADACHE,

in children under ten, forebodes brain-fever, which means an early death ; in children over fifteen, there is a more immediate connection with a costive condition of the bowels brought on by improper eating ; hence parents will not commence too early if at five years of age they should begin to impress on the child's mind the close connection between this and almost all the diseases to which they are liable, and it will be one of the most important lessons in its connection with human health and happiness which can be impressed on the minds of the young of both sexes.

One of the most effective plans of burning this important fact on the memories of the young, is to point out to them, as it occurs in all their sicknesses, that any actual present disease is preceded or accompanied by a failure of the bowels to act every day, and that in addition, when they have been ~~ailing~~ ill, a change for the better is always accompanied or followed by a freer action of the bowels ; and that grown persons may feel that they have grounds to teach such a sentiment, and find the strongest confirmation of it, they should remember that all patent medicines, except those used for throat and lung diseases, have the effect to move the bowels ; and the fact is, none of the common diseases of mankind begin to disappear until the bowels commence acting daily, and this is the reason why such a vast amount of money is spent yearly by the

masses for patent medicines : they feel in themselves, and see in others, that diseases are abated by a free condition of the bowels, and that the use of patent medicines brings about this free condition, at least temporarily. If better educated minds could see the same thing, and would take pains to inform themselves of the fact that a safer, and surer, and more permanent change to a regular daily action of the bowels can often be brought about by the use of our natural food rather than by physic, much of the sickness and suffering of the world would be prevented. In another part of this book the curative agencies of food are pointed out, and are commended to the reader's attention.

Parents should consider it an imperative duty to impress upon the minds of their children as early as their fifth year the importance of a regular daily action of the bowels, because it is literally a subject of life and death, a practical attention to which would have a very material bearing on the enjoyment and success of after life ; and it is greatly to be desired that this should be made a part of the education of children in all our public schools from the A B C classes to graduation.

CHAPTER VII.

BILIOUSNESS.

In the course of the day, all the blood in the body is passed through the liver, the proper work of which is to withdraw the bile from the blood, and to collect it into its own receptacle, the gall-bladder, which opens into the intestines just below the stomach; through this opening, the bile is passed drop by drop, particularly after eating, and it is this bile which is said to “promote the action of the bowels,” and which gives the yellow appearance indicative of a healthfully active condition of the “bilious organs,” as the liver, the gall-bladder, etc., are called.

The bile is the waste matter of the body, which must be constantly passed out of it, in order to keep the system free of those accumulations which are incident to all machinery; the competent engineer is constantly going around and about his machine, carefully removing all grease and dirt, which last is the waste, the effects of the “wear” of motion. When the liver does not “work,” the bile is not withdrawn from the blood, and the face and eyes become yellowish, this being the color of the bile; this is jaundice: as the liver

ceases to separate the bile from the blood, a man expresses himself sometimes as having

A LAZY LIVER.

A physician would say that it does not act, that it is torpid, is asleep, does not work; whenever that is the case for a few hours, some derangement of the machinery begins to take place, and will promptly manifest itself in the way of "symptoms." When, for example, the discharges from the bowels are "clay-colored," destitute of their natural, yellow appearance, disease is already present. In Asiatic cholera, the discharges are said to be "colorless;" are called "rice-water discharges," from their being of the color and consistence of water which has been used in washing out some rice preparatory to cooking it. This is the result of the liver not acting at all in cholera; and unless it is made to act in some way, the patient is as certain to die as if the head were cut off.

In all forms of fever, the liver fails to act; and the patient recovers only in proportion as the discharges begin to assume the natural yellowish tinge.

Among the symptoms of biliousness, in addition to the two already named, is a

WANT OF APPETITE.

The liver does not act, hence the wastes are not passed out of the system, and to introduce food into it, under the circumstances, is to still increase the trouble, is still further to oppress it with an additional load; but at this point Nature steps in

with a benevolent instinct, a ceaseless watchfulness, and takes away the appetite, as if to compel us not to injure ourselves by introducing more into the body, when it was already too full, in consequence of not having been unloaded of what had been put into it. To eat without an appetite, under such circumstances, is to kill one's self. But in order to make assurance doubly sure, this want of appetite in biliousness is attended with another symptom; there is not only an indisposition to eat, but there is a positive dislike, an antipathy against all food; we call it nausea, when the very sight or even thought of food almost occasions vomiting; and if, in defiance of these, we persist in eating, Nature rebels with all her power, and forces the food back, out through the mouth, and this is called vomiting. It is impossible to think of these self-acting watch-guards with which our bodies are provided for their safety and well-being, without being carried away with wonder and surprise, tersely expressed in the language of the Holy Scriptures: "I am fearfully and wonderfully made."

There are some cases where, in spite of a want of appetite, wise medical men might counsel that something should be eaten; but a bilious want of appetite, which may be known by the attendant aversion to food, combined with a feeling of nausea, should never be forced, and a strict abstinence from food should be observed until the feeling of hunger becomes very decided. The attentive reader can then readily perceive how very

MISCHIEVOUS TONICS

are ; how even suicidal it is to attempt to goad Nature to an appetite by the use of medicines which are thought to have that effect. And yet the great aim of the multitude, when there is no appetite, is to force one ; to create a desire for food when there is an antipathy against it, so strong sometimes that even the thought of swallowing a mouthful almost induces vomiting. Thus do we blindly fight against Nature, thwart her in her efforts to protect and save us ; so ignorant are we of her workings, and of the proper operations of our own bodies.

If the bile remains mixed with the blood, it must render that blood impure, thicker than it ought to be, more sluggish in its flow, less life-giving ; hence, does not pass along the blood-vessels as actively and quickly as it ought to do ; the result is, it clogs, it dams up, it congests in various parts of the body, giving symptoms as various as the parts or organs where it accumulates most. The reader is familiar with the word

CONGESTION,

which, as applied to the body, means more blood in a part than there ought to be ; so, when there is an accumulation of this bad blood, blood made bad and impure by having bile mixed with it, or, as is sometimes said, “loaded with bile,” it gives a feeling of heaviness or sluggishness, if in the brain, causing the various grades of indifference, sleepi-

ness, stupidity ; sometimes there is a tightness about the forehead, and the man is noticed to put his hand up there, and stroke it across his brow ; this stagnation is one of the forms of bad blood about the brain, and other important centres of life, and is so great in some cases, as to give rise to the term congestion of the brain, and in another form is congestive fever, of which persons die in a few hours sometimes. At others, when there is a strong constitution, or the attack is not very malignant, they may linger several days, but the uniform result is death, with unconsciousness from the very first, — so heavily does the congested blood press upon the vital parts. Then, again, there are congestions of the liver and other important organs, giving, as a general rule, dull pains or aches in any and every part of the body, for the bad blood goes to every pin-point of the system.

DULL PAINS

are the result of accumulated or stagnant bad blood, and the obvious, and natural, and most speedy remedy in such cases is the prompting of the commonest sense. If too much blood has gathered in a part, and gives discomfort, lessen the quantity ; a leech or a lancet will act very promptly ; but as there is a general horror of blood-letting, although not as dangerous as bleeding the pocket, more indirect methods of diminishing the quantity of blood in a part which gives a dull hurting sensation are preferred. A mustard plaster near a painful spot,

by drawing the blood from that part to the skin, under the plaster, diminishes the quantity, and gives prompt relief; or the same thing may be done by rubbing the parts with some coarse material, so as to irritate the skin, thus drawing the blood there. Rubbing with the hand answers a good purpose, by its aiding the circulation, quickening it, and passing the blood onwards. Bathing a dull aching part in hot water is a good expedient; it thins the blood, by warming it up, by promoting absorption and evaporation, and by stimulating the surface. Active exercise, especially if out-of-doors, and of a cheery nature, whether on foot, on horse-back, or at

HARD WORK,

diminishes the amount of blood in a part made painful by its thick impurities, by scattering it more equally over the body, and also by getting rid of the more watery portions by the frictions and other wastes, through the pores of the skin. When there is a dull headache from congested bad blood, a good hearty meal cures it for the time, because a portion of the blood is compelled to leave the head and go to the stomach, in order to enable it to perform the work of digestion of the food eaten. The great practical question comes up now with full force, What is the

CURE FOR BILIOUSNESS ?

Bearing in mind that it is an excess of blood, of blood that is bad, the very first step towards cure almost suggests itself instinctively : make no more blood for the present, because there is too much already ; and since every drop of blood is made out of the food eaten, then this is a case where not one single mouthful should be swallowed ; that cuts off at once the entire supply of what causes the mischief.

The next step to be taken is to open the pores of the skin by a thorough cleansing with soap and warm water, and vigorous scrubbing the whole surface of the body, in which there are many millions of pores or little chimneys, out of which, from the body, pass into the open air vapors, and liquids, and solids, all from the blood, and every particle of which, so passed out, diminishes, by so much, the amount of blood in the body, especially of its bad ingredient ; and when it is remembered that several pounds of this waste and impure material pass out of the body into the air, in health, in a single day of twenty-four hours, it can be readily seen how much the quantity of blood in the human body may be lowered, and how speedily, if the pores of the skin are kept open by cleanliness and friction, and no more blood is made by eating any food.

If a man does not eat or drink a mouthful all day, he will weigh a pound, or two, or more, less at night than in the morning, even if he remains in the

house or in bed ; simply because there is a constant outgo through the numerous little chimneys named ; so impalpable are these escapes, that we ordinarily cannot see them with the naked eye, hence the term is given of

INSENSIBLE PERSPIRATION.

But we may perspire so freely that this emanation becomes visible, and we call it "sweat ;" and as every one knows that active exercise "makes him sweat," then it follows that the quantity of bad blood in the body is still more rapidly diminished if active exercise is taken. Therefore, in summing up the whole matter, the dullest can see that a very efficient, safe, and natural method of correcting a bilious condition of the system, of getting rid of the excess of bile, of separating it from the blood, and thus allowing that blood to become pure and health-giving again, is simply to

GO TO WORK.

And this is a plan which is always available, costs nothing, and never fails in any curable case, if carried out on the conditions suggested. A more modified form of cure, in less urgent cases, will be found in the general direction of taking abundant out-door exercise. But it ought always to be borne in mind that, as an element in the removal of disease, work, as compared with exercise, is incomparably more efficacious ; will accomplish more in half the time, because work has an object in view, — a

result which stimulates and inspires, which pleasantly involves both muscular effort and mental exertion; time passes imperceptibly; sickness is forgotten; and a larger amount of bodily activity is exerted without half the fatigue. But suppose a man sets out to exercise for his health, to walk or ride to a certain post, and then turn round and tramp back again, he necessarily performs this as a task; his mind is not only on the number of miles, but on the time taken, and, in addition, there is the depressing reflection that he is doing all this because he is sick, and before he is through with it, he finds himself painfully measuring every step and counting every minute; in all this process, there is no exhilaration of thought, no elasticity of motion, no satisfaction at a desirable result accomplished; but the whole thing is a task, a burden, and an insufferable bore, and scholars and active business men will find it so. Still some good results from bodily motion; it is better to be a walking automaton than nothing; for every step diminishes the excess of blood and impurity in the system; and every breath of air drawn out-of-doors returns from the body loaded with impurities, and leaves it lightened to that extent. Hence, if a bilious man wants to get well, and is in no special hurry, all that he has to do is to lie down out-of-doors between two broad boards, and stay there until he gets ravenously hungry; one board to protect him from the dampness of the earth, and the other from the rain and sun. There is not a combination of medicines

known to man that is half as efficient in removing biliousness ; because absolute abstinence from food cuts off all supply of bile, and every breath of pure air relieves the system of an appreciable amount of the accumulated impurities ; so that a cure eventually is a necessity in the very nature of things. The writer has tried it, without, however, the important advantage of the boards, being a thousand miles beyond civilization ; but there was a “ passable ” substitute, — the nether board being mother earth, and the upper one the sky.

This same wonderful efficiency of

THE OUT-DOOR AIR,

in unburdening the human system, when the blood has been loaded down with the impurities of dangerous maladies and fearful wounds, has been verified a thousand times on the battle-field, in escapes from savage barbarities, and in casual cases where hospitals have been burned or sacked, — as on one occasion near New York, to prevent quarantine houses from being established in a certain locality. The sick of yellow fever were taken from the buildings before they were fired, and laid out at a distance on the grass on mattresses ; rain came on in the mean time ; and yet, with these disadvantages, they not only did not die, but recovered, while the city was shocked with the barbarity of the thing.

EVERY STEP DOES GOOD

in any case of biliousness, because every step involves the consumption of some particles, and the forcible thrusting out of others, in addition to the unloading influences of the act of breathing, as already described. And if, in addition to these, no reinforcement of bile takes place from additional food, the number of recoveries from biliousness, and all other maladies where impurity of blood is the prevailing element, would astound any careful observer, because a cure, in every case curable, is a natural and necessary result, being always a mere question of degree and time.

There are two points on which the attention should be kept steadily fixed in any effort to cure biliousness in the manner proposed ; if these points are well attended to, the restoration will be all the more certain, speedy, and enduring : 1. The exercise should not extend beyond a moderate degree of tiredness ; 2. It should be sufficiently vigorous, while in progress, to cause and keep up a very moderate degree of perspiration for an hour or two or more at a time.

While strict abstinence from food is an important element in the unmedicinal, but natural cure of biliousness in connection with out-door activities of a pleasurable character and a clean skin, so as to keep the tops of the little chimneys spoken of open, that is, the pores of the skin, it should be remembered that as much cold water may be drank, or as

much warm mild liquid, as can be taken with comfort, which would seem to have the effect of cooling off any fever that might be in the system, of diluting the blood, thus making it more capable of being passed through the small blood-vessels, and in addition giving it a capacity for dissolving the more solid particles, so that they might be more readily "washed" out of the body.

An effort has been made to be as specific as possible in giving these instructions for the removal of biliousness in a natural way, because it is literally applicable to quite a long list of very familiar symptoms which are indicative of a bilious condition of the system, as different persons are affected differently by biliousness, according to age, temperament, sex, constitution, occupation, and habits of life.

CHAPTER VIII.

DYSPEPSIA.

If a large lump of ice is put in a glass of water, it melts slowly ; if it is divided into many pieces, and stirred around, it is dissolved with much greater rapidity, because a greater surface of ice is exposed to the water, and it melts from without, inwards.

If a number of lumps of sugar are stirred in a glass of water, they will be dissolved up to a certain point ; after that, the sugar falls to the bottom ; the water is then said to be saturated with sugar ; can be made no sweeter, for it will take up no more, can hold no more.

If these comparisons are kept in view, very much will be done towards aiding the reader to understand easily what is the essential nature, and what are the principles of cure, of that widely prevalent disease of our own country, dyspepsia. When food is swallowed, it is at once enveloped with gastric juice, called “gastric” because that is the Greek word meaning stomach. This food, like the ice, is dissolved from without inwards by the stomach juice ; the smaller the pieces, the sooner will the solution or melting take place, hence the reason for eating slowly and chewing the food well, thus mashing, grinding, and cutting it up into many

small bits. It was observed by Beaumont that when meat or other food was cut up very fine, in smaller than pea-sized pieces, it seemed to digest quite as soon and easily as when it was chewed and swallowed in the natural way.

If food is not chewed leisurely, it requires so much longer time to dissolve it that it begins to ferment, to decay, to putrefy. The idea is certainly disgusting; for there is but little if any difference between eating putrid food, and having it become so soon after it enters the stomach.

In about five hours after a healthy person has eaten a regular meal, the food is dissolved, and passes out of the stomach; if it remains longer, it begins to rot; this word is used purposely, because, better than any other, it conveys to the popular mind the precise idea, — that of mortification, corruption, destructive decay, generating wind, with sour and putrid odors and gases; so that the liquid in the stomach, instead of being soft, and mild, and bland, becomes acrid, irritating, inflaming, causing, according to age, sex, occupation, temperament, and habits, a great variety of sensations, called symptoms, and combinations of symptoms scarcely alike in any two individuals in a score or more, such as

Acidity.

Appetite, excessive.

Appetite, fitful.

Appetite, vitiated.

Appetite, want of.

Bad taste.

Belching.

Burning.

Costiveness.	Pain, colic in bowels.
Distention.	Pain, dull.
Dizziness.	Pain, gnawing.
Emptiness.	Pain, griping.
Eructation.	Pain, sharp.
Flatulency.	Palpitation.
Fullness.	Rumination.
General distress.	Sinking.
"Goneness."	Skin, harsh and dry.
Haggard face.	Sleep, disturbed.
Headache.	Sour stomach.
Heart-burn.	Tenderness at stomach.
Heaviness.	Tongue, white.
Load at stomach.	Ugly dreams.
Nausea.	Water-brash.
Nightmare.	Weak, can't sit straight.
Oppression in chest.	Weight at stomach.

To this formidable list of bodily discomforts arising from dyspepsia, there are other peculiarly distressing sensations to be added, which are called the

MENTAL SYMPTOMS.

Depression of spirits.
 Despondency.
 Discouragement.
 Fretfulness.
 Forebodings.
 Irritability.
 Listlessness.
 Moodiness.

Nervousness.

Self-distrust.

Suicidal thoughts.

Suspiciousness.

Want of energy.

The dyspeptic's thoughts and imaginings are sometimes such as to startle himself, and too disgraceful to confess: at one time easy to take offense; at others avoiding company, with a feeling that nobody wants to have anything to do with him; and yet he seems to be happiest when pouring into another's ear the interminable tale of all his sorrows; there is no geniality, no joyousness, no hope. The very thought of such things must be terrible to the reader who is blessed with good health; and yet the disease is avoidable in every case, in every case can be prevented, and in every case cured, even if of many years standing, by a judicious attention to food and drink, and air and exercise. It will subserve a good purpose, in helping to understand more fully the essential nature of dyspepsia, to ascertain why such a name was given to it, and why also it was called "indigestion," for both mean the same disease with some modification, arising from the different view which two nations had of the malady; for it prevailed among both Greeks and Romans thousands of years ago.

The Greeks thought that the process through which the food went, after it entered the stomach, was in the nature of a boiling; and when it was hardly done, done with difficulty, they took two

words to express the idea, one called *Dys* or *Dys*, meaning "difficult," the other *Peptein*, or boiling, both together meaning "hard to be boiled" or prepared, *Dys-pepsia*. Later on in history, the Romans, not being willing to commit themselves to the idea that it was a boiling process, there being no fire there, gave it a name signifying unpreparedness, or want of division or preparation, — "*In*" signifying without, and *Digestio*, preparation; meaning simply that the food was not prepared in the stomach for giving its natural qualities to the system in a healthful manner. So that whether we call it *dyspepsia* or *indigestion*, it means that the food in the stomach is not acted on naturally, hence does not serve the purpose of giving nourishment, and life, and warmth, and health to the body. Then the important practical question arises,

WHY ARE WE DYSPEPTIC?

Why is it that the food, after being eaten, is not properly prepared?

It may be said that *dyspepsia* arises from three causes:—

- Eating too fast;
- Eating too much;
- Eating too often.

EATING TOO FAST.

It has already been explained that when a man eats too fast, the food is not chewed well enough; is passed into the stomach in such large pieces,

that so much time is required for the gastric juice to dissolve it from without inwards, that it begins to rot, to turn sour, causing the long list of physical and mental maladies previously named.

EATING TOO MUCH.

In the illustration of bits of sugar put in a glass of water, it was seen that a certain portion of it would be dissolved by a certain amount of water, but that it was impossible for it to dissolve any more sugar, and that if more were put in, it would remain unacted upon, undissolved, and settle at the bottom. It is so with the stomach; there is a certain amount of gastric juice, which will dissolve so much food healthfully, and not an atom more, by any possibility; if more is eaten, then it is eating too much, and it remains unfitted for the uses of the system. If a person persists in eating too much, more or less of the symptoms of dyspepsia will present themselves, sooner or later, as a positively inevitable result; and nothing but a miracle can possibly prevent it, if the practice is persisted in.

The question then arises, "How are we to avoid eating too much?" This can be answered more satisfactorily by first ascertaining

WHAT IS HUNGER?

Almighty Wisdom made the human body, in a certain sense, a self-preserving machine; this mechanism is presided over by a certain form of intelligence called instinct, independent of the higher

power of reason, because in some forms of disease, or casualty, or sleep, reason is in abeyance, and without instinct we would die in a night. The body is all the time wearing out, and wasting away in every portion of it ; as fast as this is done, and to the extent that it is done, instinct gives warning that replenishment and repair are needed ; this information is imparted, is sent forward to the stomach from all parts of the body, through the nervous system, as if by a net-work of telegraphic wires ; in the stomach they all centre, with a result to fill certain vessels there with a fluid substance, as the need for repair increases ; these vessels distend more and more, and their distention causes the feeling of hunger, which becomes more and more pressing, unpleasant, painful, agonizing, as if to compel the individual to attend to the urgent needs of the system ; the very instant the first particle of food reaches the stomach, the sluices of the engorged vessels open, enveloping each particle closely, beginning to dissolve it at once ; the unloading of these overfilled vessels gives ease first, then comfort, then positive pleasure ; hence we warm up to the humanities and amenities of life as a meal progresses.

It should be remembered that the amount of gastric juice prepared is adapted by instinct to the wants of the system, as nature allows of no waste ; and there never can be an excess of gastric juice enough to dissolve one single mouthful of food more than there is need for ; and any attempt to

eat more than the system requires, will be followed with results already detailed. One error now and then Nature has inherent power to rectify ; but if persisted in she seems to become discouraged, gives up, allows things to take their course, and diseases follow. The hunger vessels are so constructed that they must fill gradually, and gradually they empty themselves, and can do it in no other way ; they will not be hurried, and the only method to meet the case is to introduce the food by degrees ; in plain phrase, —

EAT SLOWLY.

By this means the hunger vessels are slowly and completely emptied, and when emptied, there is no further desire for food, and the man ceases voluntarily, without having eaten near as much as he would have done otherwise ; while there is the additional advantage of having the food, by this slow eating, well divided into small bits, which are, in consequence, fully dissolved, and with great rapidity. Another disadvantage of eating too fast is that before we know it, as in filling an empty bottle through a funnel, it is full and overflowing ; and not only so, the bits of food are divided, separated, become less solid, more fluid, hence occupy more room than in the more solid state ; but since the stomach was full before, it now becomes fuller than natural, that is, it is swollen, forcibly distended beyond its proper size, and the feeling of fullness, of distention, is sometimes positively painful. In this distended

condition, the stomach rises, presses upward against the lungs, confining them in their action, and there is a feeling of a want of breath; we fairly gasp for air, rush for relief to the door, and the breathing of the pure atmosphere without is a luxury. Another evil of an overfull stomach is that its distention is so great, the muscles are so stretched, that they cannot contract upon the food to push it about and around; for by this constant motion in the stomach juice, it is more quickly dissolved by it, as small particles of ice in a glass of water are more quickly dissolved if kept in motion by a spoon. In the course of half an hour or more, the contents of the stomach are diminished by the thinner portions being absorbed or evaporated, and others passing downward, until the diminution has been such as to admit of the natural working of the organ; but generally the stomach is so very full, and the amount is diminished so slowly, that before digestion has had time to prepare the food properly, it begins to sour, to rot, to ferment, and the symptoms of dyspepsia soon manifest themselves. If this overloading is persisted in, the symptoms become permanent, Nature is less and less able to help and rectify herself, and the man is a confirmed dyspeptic from the habit of over-eating.

EATING TOO OFTEN.

It has been before stated that it requires about five hours after eating to have the food healthfully acted upon and passed out of the stomach, prepar-

atory to its having some rest ; for during this five hours, it is in constant motion, and like every other muscle of the body, or set of muscles, must have rest for future action. It has been observed by the naked eye that if a regular meal is eaten, and more is added to it before it is passed out of the stomach, the process of digestion is arrested, and does not go on as to the first food eaten until the last has arrived at the state of preparation of the former portion ; this, then, is a loss of time as to the first eaten, of one, or two, or more hours ; hence it begins to sour, to create wind, to decay, to rot ; and before the five hours have expired for the working up of the last food eaten, the next regular meal arrives, the stomach is set to work anew without a moment's rest ; it is overworked, it loses its power, it is weak, does its work with difficulty ; this is literally "dyspepsia." It is thus clearly seen that whether we eat too much, or too fast, or too often, the result is one and the same — decay of the food ; its imperfect preparation and this unnatural condition give rise to the various symptoms before enumerated.

ULTERIOR RESULTS.

The immediate effect of dyspepsia, of imperfectly handled food, is not the only ill result ; the evil is far-reaching. All the blood is made out of the food we eat ; if that food is healthfully prepared, the blood which it makes is pure, healthful, and life-giving ; otherwise it is impure, does not impart life, health, and vigor ; in short, badly di-

gested food makes bad blood, and as this bad blood is distributed to every portion of the body, there is not a single square inch of it which is not liable to some diseased action. No wonder, then, that dyspeptics are full of complaints.

BAD BLOOD

has been charged as the fruitful cause of innumerable maladies. But it is well to bear in mind that the designation is a general one; it may be bad by having too much bile in it, because the liver does not work well, does not act properly, does not do its duty, is torpid, is asleep, and needs to be "touched," to be "acted on," to be "stirred up."

The blood may be made bad because the stomach does not act healthily on the food; the blood thus badly made is imperfect, is "bad," because it is innutritious. In the two cases named, the blood is too impure, is too thick, does not flow in a lively manner, and the person feels stupid, is dull, is drowsy, indisposed to do anything, and, in his own expressive language, is "fit for nothing."

The blood may be made bad by unhealthful food, by not having enough to eat, or by the person not being able to get as much nourishment out of it as was needed; in this case the blood is bad because it is poor, is thin, and the individual is weak, and wasted, and chilly.

Very many persons eat a great deal, but are nevertheless thin in flesh and weak in body, because the

FOOD DOES NOT STRENGTHEN.

This idea is expressed with sufficient correctness by the following illustration : A faithful servant, just recovering from severe sickness, is able to do a small amount of work well ; but if a heavy task is given, there is not strength to perform it, and, in the ambition to complete it, the whole of it is badly done from haste and want of strength. An overworked, a debilitated stomach may digest a small amount of food thoroughly and well, making out of it pure, good blood, giving life, strength, and nutriment to the whole body, as far as it goes ; but if a heavy meal is taken, it may be converted into blood, but that blood will not be perfectly formed ; it will be badly made, not one drop of it will be pure, life-giving ; and not only so, going to the heart as it does, to be mixed with the other blood of the body, it deteriorates it, and there is not an ounce of good blood in the whole system ; and as this blood is sent to every pin-point of the body, it being an unnatural material, it makes an unnatural impression ; hence it is that in the entire body of a dyspeptic there is not one single square inch in a natural condition, hence is liable to suffering and disease, those parts complaining most which by any means have been rendered weaker than the others ; for as when the cholera is sweeping off its victims by the thousand, those are first attacked who are in poor health, or whose constitutions are feeble, so when disease is about to attack an individual, it

falls upon the most debilitated part of the body. In common colds, for example, if the voice organs have been over-exercised, the cold falls upon the throat, and the man is hoarse; if the lungs are weak, it falls on them, and there is severe coughing; if the bowels are weak, it attacks them, and occasions diarrhœa, and the cold is said to "run off" through the bowels; so a dyspeptic will have the brunt of his malady fall on that part of the body or on those organs which are unnaturally weak; causing the countless combination of symptoms which this unfortunate class of persons have.

But as various as the symptoms are, the remote and more immediate cause is one and the same, undigested food, making bad blood; and the remedy must in all cases be such as will cause the one result, —

A STRONGER STOMACH, —

one which can digest the food. There are two essential requisites of a healthy digestion. There must be gastric juice. There must be strength in the muscles of the stomach to contract upon the food in such a way as to keep it in motion in the gastric juice, for the purpose of promoting its dissolution, its melting, as previously illustrated by the melting of small pieces of ice by stirring them around in a glass of water.

Medicine cannot make gastric juice. As seen awhile ago, it is a liquid prepared as a consequence of the need of repair; this need of replenishment and repair is occasioned by a previous waste or

wear ; that waste or wear cannot be brought about without motion of the muscles, which is expressed by the word “exercise ;” it is muscular exercise which creates gastric juice. Without gastric juice there never can be any digestion of food, any converting of it into healthy blood ; and here at this point are found a vast multitude of failures in the cure of dyspepsia ; it being sought to be done in every possible way except in procuring gastric juice, the absolutely essential element under all conceivable circumstances. It is so much easier to

SWALLOW MEDICINE EVERY DAY

than to go to work, that human ingenuity has been taxed to the utmost to find something which will make the stomach digest the food. Acting on the presumption that dyspepsia was simply a weak stomach, every conceivable tonic and stimulant has been given to “strengthen the stomach ;” but even supposing it were accomplished, a previous prime necessity existed in the presence of gastric juice, which is a product of muscular exercise, voluntary or involuntary, and of nothing else known to man.

EXERCISE,

and more particularly out-door exercise, is the first, the essential element in the cure of dyspepsia ; this and one other, — strengthening the stomach in a natural manner, — will, sooner or later, ameliorate and remove the disease, it might almost be said in every case, if the man is not already dead, and

if there has not been set up some organic disease in other portions of the body in consequence of its long duration in the system. As there is only one way to obtain gastric juice, so there is only one way, natural, legitimate, and effectual, of strengthening the stomach, according to a true physiology, and that is by rest, which is the secret of the cure of dyspeptic disease, regardless of its duration ; and it can never be cured without it ; not the rest which opiates give ; not that which is the result of sedative remedies, but that which comes naturally, the rest of simple cessation of legitimate action. The Almighty has planted within us, and made it a part of our nature, a kind of self-active agency, called

RECUPERATIVE POWER.

You bend a bow, but the moment it becomes unrestrained, it returns to a natural state, and thus recovers, as it were, the power to act again. The bow regains, passively, its elasticity, by being allowed to remain unstrung ; but there is a more active process going on all the time in the human system. When it is strung up like the bow, that is, when it is at work as to any of the organs, it expends its power, its strength ; but the moment it ceases its labor, it falls into a state of rest, as far as the expenditure of effort is concerned, and that very moment it begins to regain the strength it has been expending, or, more strictly speaking, it begins to gather new strength, or the power to put forth strength : this is recuperative power. When

a man is tired, he lies down, and strength comes to him, so that in a short time the feeling of weariness has disappeared, and he feels as capable of work as ever; this capability seems to spring up within him as a result of rest. A man thinks, and gets weary; the brain becomes tired, and he falls asleep; during sleep the brain recovers its energy; during sleep, which is the "rest" of the brain, new particles are added to it, to be expended in thought again; and so in succession, day and night, for a life-time.

The same principle is applicable in connection with the labor of the stomach; its work is to digest food, to put it into a fluid condition, preparatory to its absorption into the system as a means of nourishment, strength, and life; and the stomach's "rest" is in having no food in it to keep it at work; by that means it recuperates, gains power to act on subsequent supplies of food, and in no other conceivable way can it acquire that power naturally and healthfully; and this "rest" will always give it that power. Dyspepsia weakens the whole body, and the stomach takes its share of the debility; in this condition, if it cannot do much, it may do a little, can do something, and the legitimate conclusion is, that under the circumstances the way of cure is to give it a small amount of food, thus imposing on it but a little labor, as it has power to do but a little. The natural steps to be taken, then, in

THE CURE OF DYSPEPSIA,

in any case, are first to take exercise, to go to work, so as to generate gastric juice ; the presence of this in the vessels about the stomach causes, as has been explained, the sensation of hunger, which is to be met by small quantities of food. This expression of "small quantity" is a relative, comparative term, and the reader will naturally want something more definite ; but as no two persons are alike in their capabilities for taking food and their need of it, a principle of action must be adopted which will admit of universal application. The exercise of a close observation and a correct judgment will meet the case of every one. A "large quantity of food" is an amount which, after having been eaten, causes a disagreeable reminder ; an amount of food is "small" which, after having been eaten, attracts no attention whatever, unless it be in the way of a pleasurable reminiscence. If a spoonful of food is followed by any disagreeable feeling whatever, that is a "large" amount for that individual. If a man has not eaten a particle of food for a week, a table-spoonful of meat would be a "large" amount for him, would be "too much ;" for it would throw him into convulsions in ten minutes or less, because, although ever so hungry, the stomach is so completely exhausted, with the other parts of the body, that its muscles cannot act upon it ; it is too weak, too near death or utter prostration, to feel the stimulus of the presence of food.

In a perfectly healthy condition of the stomach and the digestive functions, there is positively no sensation after the food has been swallowed, except that of agreeableness and of entire satisfaction with one's self, and indeed with the whole world besides. All the functions are perfectly and healthfully carried on, without our being at all conscious of any of these processes. But if, instead of this happy state of things, there is any uncomfortable-ness, then it is certain that healthful digestion is not in progress, and that is dyspepsia.

DISCOMFORT AFTER EATING

arises from one of two causes: the person has eaten too much for him, or he has eaten something which the stomach does not tolerate, which it cannot manipulate, cannot take hold of, cannot dissolve; but this latter is so seldom the case, that it is scarcely necessary for the mind to make special note of it. Nine times out of ten, the error consists in excess as to quantity; quality rarely enters into the case.

If the patient can only have the force of character to enable him to avoid eating too much, with this explanation of what is "too much," his triumph is sure; he will conquer the disease, and will one day be a well man. The day may be far distant, but it will come, even if he is half a century old before he enters upon the dreadful conflict; for the strife, the fierce temptation, the high heroism, the deadly tenacity of purpose brought into requi-

sition in any case of confirmed dyspepsia of long standing, does make the contest literally dreadful to think of.

A HARD EARNED VICTORY.

But as that model philanthropist, Amos Lawrence, said, after a fifteen years' fight on this same ground, when he contemplated his triumph, "If men could only know how sweet it was, they would not hesitate a moment." Not that it requires fifteen years of battle thrice a day to keep from eating too much; it cost the noble man so much, because he turned his whole attention to the one point of not giving his stomach too much work to do; and shame it was that so good a man should have been so great a coward; for in order to prevent himself from eating too much, he would not go down to the general table, but had a certain amount brought to his private room. It certainly was the easiest plan of conducting the campaign; but the manlier course would have been to have fought it out at an abundant table. The contest was overlong in his case, because he took only one branch of the cure; in addition to his praiseworthy carefulness not to give the stomach too much work to do, he failed to pay the requisite attention to the natural means of procuring a larger amount of gastric juice; that is, he did not exercise or work enough out-of-doors.

It was not thought profitable to general readers to enter into minute details, and to lose time in nice philosophical disquisitions connected with dys-

pepsia, but rather to touch on points applicable to the masses of readers. There is, however, one consideration it might be well to remark on. When the stomach has been dyspeptic for a long time, a condition of things is sometimes induced which ends in forming an unnatural lining of its whole interior, or parts of it, which in some cases is detached, in whole or in part, and is passed out, sometimes upward, and at others downward, seeming to have almost the tenacity and toughness of India rubber or sole leather. Such cases are happily rare.

It is seldom advisable to eat by

WEIGHT AND MEASURE.

Hence, in adapting food to the capabilities of the stomach, rather than the needs of the system, it is better to follow a simple rule. If discomfort is experienced after a meal, then at the next take less and less, until the amount of food is so small that no discomfort whatever is experienced afterwards; continue this amount for a few days, and the stomach, as well as the whole body, will become stronger; for the small amount eaten, having been well digested, and converted into nourishing and pure blood, gives many times more strength and comfort than if a much larger quantity of food had been taken, and which, not being properly handled, would have been a hindrance, instead of a help in building up the system. After living a few days in the manner described, the stomach getting stronger with the rest of the body,

a little more food may be ventured upon, and in a day or two a little more still, with the result of increasing general health, and strength, and vigor.

In recovering from dyspepsia, as well as from other diseases, the appetite is occasionally fitful and capricious; instinct is sometimes wise, and sometimes at fault; the safe plan, under all circumstances, is to eat very sparingly at first of any coveted dish, and feel the way along, increasing the amount by small degrees. An old woman in one of the missionary stations abroad, being very feeble, was kindly asked if she could think of anything she could relish; she replied that she thought she would get well if she could only have the roasted head of a little baby to pick. It is not altogether advisable to gratify instincts of that kind; rather endeavor to direct the attention to some other tidbit, or substitute a monkey's head.

There is another condition in which we find instinct at fault, and it is not remembered that it has ever appeared in print, in the practical connection in which it ought to be placed, although it is at the very foundation of the cure of dyspepsia. A more full explanation of this phenomenon will be found further on, under the heading of "Hunger."¹ One of the most prevalent symptoms of this distressing malady is an

INAPPEASABLE APPETITE.

The patient feels as if he would die if he did not eat; and he does eat, but in a short time is as

¹ See pp. 157-158

hungry as ever; yet after each repast there are tortures of mind and body, lasting sometimes for hours, which amount almost to an agony, to be repeated after each meal, for weary weeks and months and years!

It is sad to think of the multitudes who suffer from one or more of the symptoms of this our national disease, as a result of ignorantly eating too much, or too hastily, or too often, or of engaging too soon after eating in severe mental or manual labor.

Dyspepsia is a disease of civilized life, but is almost unknown in Germany, owing in part to their deliberate way of doing almost everything, eating included, and in other part to their patient, out-door life, to their plain food, and their regular habits of eating and living. They make haste slowly, and, as a result, are the most generally thrifty people in the world, are the best scholars, the most patient investigators, and have shown themselves nobly conspicuous and able in every creditable department of civilized life. Quiet, peaceful, courteous, and kind, the German people merit the respect of the cultivated minds of all nationalities. It is the

HURRY IN EATING

and the hurry to go to work after eating, which make us a nation of martyrs to the horrid disease which is here discussed. The type of an American in business is to gulp his cup of coffee at a

swallow, grab the morning paper with one hand, his hat with the other, and bolt for the street door, as if the house were on fire and his life depended on the speediest exit possible ; the moment he takes his seat in his conveyance, whether it be a private carriage or a public vehicle, he is so completely immersed in the item of latest news pertaining to his special branch of business, that he seems to be perfectly oblivious, for the time being, of the existence of anything in the universe besides himself and his business. An American merchant who has

FAILED THREE TIMES,

and made himself famous for all ages, stated that for seven years he never saw his children awake, except on Sundays. So great was his haste to leave his home early in the morning, to "get to the store," and so late was he in returning, that the little ones had all retired for the night, and had not waked when he left in the morning. Such a hurrying through life is always unwise, and will be always attended with some disaster, either to mind, body, or estate.

FEELING OF "GONENESS."

This, or the kindred sensation of a "gnawing" at the pit of the stomach, or any other uncomfatableness, indicates that the machinery of digestion is out of order, that something is amiss. When this occurs in any mechanical combination, the first instinctive act is to stop the machine instantly,

but in case of the stomach, at least when there is a morbid appetite and also as to some other sensations, instead of stopping its working, we either give it more work to do, or, by taking some stimulant, cause it to work faster, as by a glass of brandy, a cup of tea, or a tonic. It would be much more rational and beneficial, if, when the stomach complains, we would empty it by an emetic, instead of filling it fuller with delicacies or drinks.

This subject is of such practical importance, that it will not be amiss to illustrate the point in another way. When there is uneasiness in the stomach, it results from eating improperly ; healthful digestion is not going on, and Nature begins to complain. There is not gastric juice enough to prepare the food for the uses of the system ; and under such circumstances, to add to the amount, either by eating or drinking, is like adding ice to a glass of water when there is already more ice there than the water can melt in any reasonable time.

Again : If you want to kindle a coal fire, take a small amount of wood, and let the heat of it be concentrated on a small amount of coal, because the coal will not ignite, until it is, as it were, saturated, filled with heat. If, when the fire does not burn, you add more coal, as servant girls at home or passengers on railways often do, and the stove does not give out enough heat, you actually put the fire out, because the heat in the kindling is diffused over a larger amount of coal, and thus it is farther from burning than ever. Precisely so is it in refer-

ence to eating, and it is a point of the utmost practical importance in every-day life to every man, woman, and child ; therefore,

It is wrong to eat while there is any uncomfортableness in the stomach, as it is the result of there being too much food there already.

It is wrong to eat without an appetite ; for it shows there is no gastric juice in the stomach, and that Nature does not need food, and not needing it, there being no fluid to receive and act upon it, it would remain there only to putrefy, the very thought of which should be sufficient to deter any man from eating without an appetite for the remainder of his life. If a “ tonic ” is taken to

WHET THE APPETITE,

it is a mistaken course ; for its only result is to cause one to eat more, when already an amount has been eaten beyond what the gastric juice supplied is able to prepare. The object to be obtained is a larger supply of gastric juice, not a larger supply of food, and whatever fails to accomplish that essential object fails to have any efficiency towards the cure of dyspeptic disease ; and as the formation of gastric juice is directly proportioned to the wear and waste of the system which it is to be the means of supplying, and this wear and waste can only take place as the result of exercise, the point is reached again that the efficient remedy for dyspepsia is work,—out-door work, beneficial and successful in direct proportion as it is agreeable, interesting, and profitable.

ANOTHER ERROR

in the treatment and attempted cure of dyspepsia is, that finding it was caused and continued by eating too much, that the stomach had not the ability to manage so much food, it was concluded that the best means of remedying the evil was to eat very little, almost nothing : this was the starvation cure for many years ; and even up to the present time, it is a very general impression that dyspepsia is to be cured by dieting, and unwise persons, getting hold of the idea, have literally in many cases dieted themselves to death, — reduced themselves so low, brought the stomach to such a debilitated condition, that it lost all power to digest the food ; then of course death was an inevitable result.

If food enough is not eaten to sustain the system, it gets weaker and weaker every day ; the stomach must have its share of the weakness, and must every day have less and less power to perform its office. The very first step in the cure of any case of dyspepsia is to strengthen the stomach ; this must be preceded by strengthening the body ; and this never can be healthfully, and permanently, and safely done in any other way than by obtaining nourishment from the food eaten. All other efforts must fail, always have failed, always will ; and yet this is almost universally attempted. To strengthen the body, nourishing food must be given, — food which requires least stomach power to digest, and which, when digested, proves to be a material the

nearest possible like the bodily elements. And here is where the great error of modern times has crept in, and which has perpetuated the disease instead of curing it. It was and is still almost universally believed that, to cure dyspepsia, vegetable food should be eaten rather than animal, and thousands have found by sad experience that they grew worse ; now and then a closely observant mind pursued a directly opposite course, excluded vegetables wholly, and ate meat, and bread, and fruits, with a triumphant result ; because the essence of dyspepsia, as its name imports, is a difficulty in preparing the food for the needs of the system ; the Roman term “ indigestio ” (we add an *n*) means a failure of preparation, — no preparation at all ; both intimating a want of power of preparation, inability to do the necessary work, want of strength.

TO MEET THIS DIFFICULTY

as well as possible, it would seem to be the dictate of common sense to endeavor to favor the stomach, and give it the food which requires the least strength to prepare ; which, in other words, is most easily, soonest digested, soonest dissolved by the gastric juice ; and here scientific observation comes to our aid. By looking at the tables at the end of the book, the general truth will be observed, to the surprise, perhaps, of many readers, that fruits require an hour or two to digest, vegetables five hours, roast beef and roast mutton some three hours, and good bread about the same ; not only is roast meat or

broiled digested in about half the time of boiled cabbage, but it is so near alike, in its elements, to our own bodies, that it is appropriated to the uses and needs of the system with the least possible trouble ; and so with properly prepared soups, eaten with coarse breads. As proof of this statement, dyspepsia is scarcely known among the soup-loving Germans, and not much among beef-eating Englishmen. It is not intended to say that a Dutchman never has dyspepsia because he will have his soup every day, nor that the people who glory in roasted meats escape the torments of indigestion solely because they eat largely of beef and mutton ; but it is meant that if they are exempted from these maladies, it is the philosophical result of giving their stomachs the least possible work to do, — in that they live largely on food which is easily appropriated to purposes of nutrition. To sum up, then, all the practical points in connection with the treatment and cure of dyspeptic diseases, the following recapitulation is made.

Out-door activities, by promoting the wear and tear of the body, cause a preparation of gastric juice which occasions hunger ; this hunger enables us to partake of food with a relish, which is an important requisite of a prompt, easy, and healthful digestion ; in other words, to get well of dyspepsia, a man must get an appetite by going to work.

The next step is, eat such food as is easily digested, and which at the same time contains elements most like the flesh and bones of the human

body, and require the least amount of labor to be made a part of it.

This food should be finely divided, in pieces not larger than a pea; then chewed deliberately and eaten slowly, so that each particle may pass into the stomach well crushed and ground by the teeth; for when that is done, the gastric juice, as previously explained, entirely envelops each particle, and melts or dissolves it rapidly.

The amount of food to be eaten by each dyspeptic should be measured by his ability to eat without discomfort. This must be ascertained by close observation, and can always be regulated. Whatever amount is followed by any unpleasant reminder in sensation, is "too much." However much can be eaten with no disagreeable feeling from the instant after it is swallowed, that is the temperate amount for such person, because that amount is healthfully digested, will make good, pure blood, and will impart nourishment and strength to the whole body; and as the stomach will take its share of that strength, it will be able from time to time to digest more food; hence the patient may carefully and gradually increase the amount eaten.

The meals of a dyspeptic should be not less than five hours apart. Should there be no appetite when the time for eating comes, then resolutely wait until the next meal; but, at that deferred meal, eat no more than if a meal had not been lost, thus insuring that the stomach shall not be overloaded, which would cause a fresh attack of dyspepsia, and thus retard the cure.

Breakfast should be taken in the morning, not later than an hour after sunrise; dinner about midday, and supper at sundown: these hours are not imperative, but they are the best, as it enables the person to take the three meals during daylight, with a five-hour interval, and prevents the error of taking supper without a sufficient interval before retiring.

The first thing after each meal is to retire to a pure atmosphere; outside the walls of the house is best, as long as the weather is warm enough to prevent a feeling of chilliness; such a feeling should be guarded against with great care, as it is always injurious, and, in weak constitutions, has, on several occasions, caused death, when the chill has been decided and severe. If it is fire time of year, then sit in a room where there is an open fire blazing on the hearth, such, for example, as is given out by the Low-down Grate of Dixon & Sons, of Philadelphia; for it makes the most cheerful and purest heat from wood or peat, or soft or hard coal, that can be devised.

For the first half-hour after eating, there should be quietude of body, with the exhilaration arising from cheerful conversation, accompanied with a very leisure walking across the floor, with the chin above a horizontal line, and the hands held in each other behind; this promotes a gentle circulation of the blood, throws out the chest without an appreciable effort, and aids in full breathing.

WHAT SHALL WE EAT?

is the eager inquiry of the unfortunate dyspeptic. Unless the case is confirmed or very aggravated, there need be but one rule for all : eat whatever you relish most, in quantities which shall not be followed by the slightest bodily discomfort whatever ; but the nearer one can keep to coarse breads, with butter, and ripe, raw, perfect fruits and berries in their natural state, without cream, or milk, or sugar, and rare roast meats, cut up as fine as a pea and chewed deliberately, with tomatoes as a vegetable, the more speedy and encouraging will be the improvement and ultimate cure.

The supper of the dyspeptic, the last meal of the day, should be made of one cup of warm drink, with cold bread and butter. In many cases, however, pilot-bread, or ship-biscuit, or the crust of common bread broken into the cup of warm drink, will agree with the stomach much better than the ordinary bread and butter.

Many persons have found very great advantage in using altogether the bread named ; some prefer to take one or two cakes, place them on a plate, cover them with boiling water for a minute, pour it off, and then cover again ; this softens the hard biscuit, on which butter may be spread, if the butter does not disagree with the stomach.

As it is often difficult to get pilot-bread or ship-biscuit out of cities, a substitute may be made by any family, by mixing up common flour, or, which

is better, "shorts," or flour from the whole grain of wheat; this contains the bran; bread made of this contains very important elements not found in white flour, and gives more strength than it does; strength to bones, and teeth, and brain; this flour should be mixed up with water, in the ordinary way, — rain-water is best, because it is soft and pure; then make into cakes the size of a common saucer, less than half an inch thick; put in a hot oven, and keep it hot until baked enough, without burning; such bread is exceedingly nutritious, and will keep for months. It would answer an admirable purpose, by promoting digestion and strengthening the teeth, if this hard bread were not softened at all, but were broken in small bits, not over half an inch across, and chewed deliberately, so as to be softened by the juices of the mouth. Sometimes, if it can be done without uncomfortableness in the stomach, the supper above suggested, may be substituted by a dish of berries in their ripe, raw, perfect natural state, not drinking any fluid with them, nor for two hours after, so as to prevent fermentation.

WHAT SHALL WE DRINK

at our ordinary meals? is another natural inquiry of the dyspeptic. The answer to this is more or less applicable to all, whether sick or well. Actual observation showed, in Beaumont's experiments, that if cold water was taken into the stomach during a meal or soon after, the process of digestion was instantly arrested; and to arrest a natural

process must be mischievous. The process did not recommence until the water drank had been raised to the heat of what was in the stomach before, which was about a hundred degrees ; ordinary ice-water, as used at our tables, is about thirty-five degrees ; spring and well water are not so cold. To heat a glass of ice-water from thirty-five to a hundred degrees, must rob the general system of a great deal of its warmth, and has often thrown persons at the table into a chill. Invalids frequently have a chilly sensation at the table, because they have so little vitality, — such a small amount of heat, that there is none to spare to heat cold water or even cold food ; and as the milk provided for the young of animals and man is warm, it may be readily concluded that what is drank at meal-time, ordinarily, should be warm ; it seems at least to be natural ; at the same time, persons in robust health may drink cold fluids at meals with apparent impunity. But such a practice is not advised, for it seems to be unnatural.

COFFEE AND TEA

are usually taken at least for two meals in the day ; for dyspeptics and the young this is not advised ; but a good, and nutritious, and healthful warm drink for all, and many cannot tell the difference between it and

THE BEST MOCHA COFFEE,

for breakfast, is made thus : parch corn (Indian)

meal to the color of common ground coffee ; take about one teacupful and mix it with one quart of molasses or sirup ; put it into a hot oven, keep it heated and well stirred until it is pretty well dried in lumps, then use as much as is agreeable. So much for the coffee as a warm drink for breakfast.

A GOOD TEA

for all the young, for invalids, sedentary and nervous persons, is made as follows : mix boiling water and boiling milk, half and half, and sweeten to suit ; this is simple, is nutritious, and will be grateful to many stomachs during a meal, if taken warm, almost hot ; either this or the “ coffee ” may be taken at dinner-time, one cup and no more until health is restored.

In reference to the weakness, the inability of the stomach in dyspepsia to prepare a full meal for the nourishment and support of the system, there might be power to prepare a part of a meal. It would then seem to follow that if a dyspeptic would eat less at a meal, the whole difficulty would be removed.

But at this point there comes in one of the most curious and suggestive ideas connected with the subject of human health, which we do not remember ever to have seen published or to have heard mentioned ; yet it seems to be at the very foundation of the cure of dyspepsia.

The stomach of the dyspeptic has not the strength to prepare the food for imparting nourishment to

the system ; hence the patient grows weaker and more wasted generally, although some dyspeptics appear plump and almost fat ; it is because the flesh is watery, and the patient often complains of being

“WEAK AS WATER.”

Generally dyspeptics are long, lank, and lean, a model skeleton. The idea referred to is not very readily expressed in few words ; but it is of such practical importance to communicate it in such a way as to make a lasting impression on the mind, that pains will be taken to that end.

HUNGER

is an instinct, the result of a kind of telegraphic communication, sent from every part of the body to the stomach, thence to the brain, and the mind, indicating that repair of wear and waste is needed ; this sensation causes the preparation of a bland fluid in receptacles which are placed on the sides or walls of the stomach ; as these vessels become fuller and fuller, the sensation of hunger increases, which sensation is pleurably gratified by eating ; for the moment the first mouthful enters the stomach, these receptacles begin to unload themselves, very much as many readers have noticed a gush of liquid from the inside of the cheeks at the instant of putting something to eat in the mouth while very hungry. But the dyspeptic stomach fails to send nutriment to the parts of the system requiring it, because, although a plenty of food is there, it has not strength

to prepare nutriment from it, and blind instinct, thinking as it were that no nutriment comes, because there is no food in the stomach, keeps calling for more food, repeats its signals that the wear and tear must be supplied for repairing purposes; hence it is that the dyspeptic has a voracious appetite at times, is almost as hungry soon after a meal as he was before he sat down, and he often exclaims, in anger or hopelessness, —

“ EATING DOES ME NO GOOD.”

This arises from the fact, that although there is a plenty of food in the stomach, there is no power to get nourishment out of it; but nourishment is the thing which is wanted, the system feels itself almost perishing for want of it, and cries in louder and louder tones, just like a hungry baby. This is the false appetite of the dyspeptic, and is one of his chief tormentors. He is always hungry, always craving, yet never satisfied. He gets so hungry sometimes, about an hour before the regular meals, that he feels as if it was impossible to wait till that interminable time of an hour should pass along. Just at this point almost all dyspeptics will eat, and thus aggravate the disease, and make it more incurable; they eat a little “to stay the stomach,” as they express it, to quiet the painful gnawings within; but by so doing they but increase the burden, for before this can be digested, the regular meal comes on, the digestion of the “snack” is arrested, and is kept thereby so long in the stomach that it decom-

poses, sours, aggravates all the symptoms, and aids to perpetuate the disease. In the case above, it is more nutriment that the system is crying for, rather than more food; and nutriment must be given by taking more exercise rather than more food, for exercise prepares more gastric juice.

THE SEVERE GNAWING

in dyspepsia, experienced before the regular hour for eating arrives, should be heroically resisted; for to eat a little to appease it, is but to parley with your worst enemy, to aid in fixing the malady so deep into the constitution as to defy all human means of extirpation.

But when more food is taken into the stomach than there is gastric juice present to dissolve properly, nature gives some disagreeable sensation indicating that something is wrong, and another morsel should not be swallowed until that wrong has been rectified. These sensations, showing that an error in eating as to quantity or quality has been committed, oftenest in the former, are different in different individuals, and are called symptoms or signs of disease; they are both physical and mental, are over fifty in number, and have been already enumerated as those which are most common or striking.

GOOD VINEGAR.

is the nearest in its action on the food to that of gastric juice, known to science. It does not agree with some dyspeptic stomachs, but it is not only

grateful, but decidedly beneficial to many, seeming to add to the power of digestion. Cold, raw, tender cabbage, cut up fine, a handful of it, with a table-spoonful of vinegar, is a cabbage salad, and is a great aid to weak stomachs; it is a good digester, is called

COLE SLAW,

and is found to digest in the stomach in about an hour; boiled cabbage with vinegar requires five hours; hence we may reasonably conclude that the former is easy of digestion, and may be taken at dinner time by a dyspeptic with positive advantage.

For the great mass of dyspeptics, very succinct instruction may be given, in the light of what has been stated, with an encouraging certainty of cure, and it is this: work out-of-doors until you are really hungry for dinner; eat as much as you want of plain, nourishing food, without having one single uncomfortable feeling after it, giving preference to that which is most palatable, and that "agrees;" after pleasant relaxation of mind and rest of body in a pure atmosphere with cheerful surroundings for about an hour, go to work again out-of-doors, and keep at it until the meal has been thoroughly digested; take the supper already recommended; get all the sleep possible between ten and seven o'clock. eat as much breakfast as you can without subsequent discomfort, and, after a suitable rest, go to work as on the day before, with an absorbing object in view.

Such a course, persisted in with a spirit of determination and intelligent hopefulness and courage,

will cure any curable case in a reasonable time ; will effectually and permanently cure nine cases out of ten. Now and then a peculiar case will present itself which must have a modification ; it would not be possible in one book to meet every case ; but what has been proposed will seldom fail to make an encouraging change in a fortnight, and whoever, under such circumstances, would not persist in a course which began to do good, is unworthy of being cured ; the presumption would be that what began to improve a man, would continue to do him good, if persisted in.

If a man has been a dyspeptic for years, it is not reasonable to suppose that the injury to his system can be repaired as soon as in the case of one whose stomach has been out of order for a few months only ; but it is believed that a patient courage in carrying out the instructions given, with an intelligent judgment, would permanently cure the great mass of dyspeptic cases : it has been done multitudes of times. Aggravated cases of dyspepsia, of years' standing, have been cured, and remain cured to the end of a long life, without one grain or drop of medicine, simply by the intelligent observance of the instructions given ; and there is no reason whatever to suppose that thousands of other cases should not be likewise permanently cured in a reasonable time in the same manner, because the means used are natural.

If dyspepsia can be thus cured, and cured permanently and with such encouraging certainty,

why has not the plan attained a world-wide popularity? One reason is, there is no mystery about it; a second, because it costs nothing; a third, because it requires self-denial; and, fourth, it requires moral courage.

If dyspepsia could be cured by drinking a pint of liquid preparation of asafetida with some unknown drug combined equally nauseous, and it were sold at ten dollars a pint, in spite of its price and its nauseousness the seller would gather the income of an Astor or a Stewart annually, because it requires no trouble beyond the momentary swallowing; but daily effort and self-denial for weeks, and weary months sometimes, prove too bitter a pill for human nature. Rather than try the plan proposed for a month, the multitude prefer to experiment on ten thousand other methods, one after another, because they can be tried passively, while they are permitted to eat and drink almost what they please, and, above all, to do nothing but loll, and loaf, and lounge about the house, swallowing this man's bitters and that man's tonics, guzzling wine, swilling brandy, and cheating the appetite by the beguilements of cookery, to the end of increasing the malady every day, and making glorious life a misery.

Instead of working in the open air until one is hungry, then eating a moderate amount of plain food and working out-doors again until it is digested healthfully and passed out of the stomach, thus making way for more food, gaining strength and

vigor and new life and power daily, a half-and-half course is pursued, thus : the poor unfortunate begins to inquire, " Will it hurt me to eat this ? " and as to out-door exercise, between its being too warm or too cold, too damp or too windy, too late or too early, it is managed to walk about a mile in a month ; for these reasons, to wit, that not one in a hundred has any force of character, any moral courage, has not the spirit of a man, but is a moral coward, the masses will still remain martyrs to dyspepsia until they die.

The rule ought to be with all sedentary persons, especially with dyspeptics, to be out-of-doors in the open air, actively, every day, rain or shine, regardless of the weather. If it is raining, take an umbrella, and let it rain ; if it snows, no one was ever hurt by snow-flakes ; if it is windy, wind purifies the air, and so much the better for your lungs ; if it is cold, wrap up well before you leave the house, shut your mouth, and move off briskly ; if it is mid-summer, take your walk just before sunrise, and walk two hours very leisurely. It should be remembered that bodily exercise is essential to the maintenance of health ; much more is it necessary to regaining it. If circumstances connected with the weather present obstacles to your taking exercise, so much the worse for you ; a miracle will not be wrought to procure a dispensation for your benefit and behoof, so that you may omit the exercise with impunity ; not any more than if your house were burning in hot weather, its being hot ex-

cused you from the necessity of putting it out ; and yet this is the mode of reasoning which a certain class of persons adopt to excuse them from going out-of-doors or going to church, unless the weather exactly suits. If it is a man's duty to his Maker, and to his fellow-man as an encouragement and a good example, to go to church on the Sabbath day, its being a little too warm or cold, too wet or dusty, too cloudy or too clear, does not exempt from the duty.

Still there is a practical substitute for not taking out-door exercise, if it is insisted that the weather is not suitable.

LIVE ON BREAD AND WATER,

literally, every day on which no exercise is taken, and then a person will get well of ordinary dyspepsia almost as soon as under other circumstances. Proof of this principle is found in the cases already given, where persons sent to prison rapidly improved in health on prison fare, and the cessation of improper indulgences, such as smoking, chewing, snuffing, and drinking.

ROCKING-CHAIRS.

If persons are debilitated so that but little exercise can be taken, and their means do not allow them to ride, a very great advantage will be found in rocking under a piazza or tree, or in a well aired room, — always remembering that there is no pure air within any four walls, and that the actual

out-door air and sunlight for one hour will do more good than a two hours' performance of the same exercise within inclosures. There is a beauty to the eye in

ALL OUT-DOORS ;

a charm to the mind, an exhilaration to the spirits, and a life to the body, which nothing else can give to an invalid ; and it is a world's loss of happiness, that this great catholicon of nature is so neglected by ailing persons under the deceptive plea of unsuitable weather, that they will take cold ; forgetting a truth everywhere acknowledged, that the more a person is out-of-doors, the less danger is there of taking cold, and that those who are out-of-doors all of daylight seldom take cold at all.

CARRIAGE RIDING,

in the languid manner in which the pampered drive over our asphaltic pavements and our splendid Park, is certainly much better than nothing, for it gives the opportunity of a pure air the meanwhile ; but the less favored should not feel discouraged or repine at their seemingly harder lot ; for an hour's ride in an omnibus over rough pavements, or in a street car, has advantages over the private carriage, and can be indulged in at the small cost of about a cent a mile ; for it is important to bear in mind that the efficient remedies so much insisted on, and with such preciseness, and at such length, are out-door air and effort.

CHAPTER IX.

NEURALGIA.

NEURALGIA is literally "nerve-ache," being composed of two Greek words, "neuros," nerve, and "algos," ache or pain; indeed, there is no pain without a nerve, and no nerve which is not capable of being pained; so that in reality every pain is a neuralgia; but by the term in common conversation, it is made to mean a severe pain without a visible cause. A burn gives pain, but it is not called neuralgia, since the cause of the pain is apparent; this article treats of that kind of pain which has no visible, tangible cause.

If pain is caused by any process which is destroying the texture or substance of the body, as cancer, we call it an organic disease; when the lungs are decaying away with consumption, it is an organic disease; all diseases of the heart are organic which involve the integrity of its structure; all organic diseases are necessarily fatal.

Another kind of disease is called "functional," or constitutional; the ordinary liver complaint is a functional disease, so is a common cold, so is neuralgia. Of all functional diseases we may get well permanently; may become as healthy as at any previous time of life. If a clock has a wheel broken

or a cog removed, it is an "organic" mishap; if it is only clogged with dust or other thing, so as to prevent the wheels working, it is a "functional" disorder; it can be made as clean as it was on the first day of its completion, and may be made to keep as perfect time as when it first left the hand of its maker.

In the article on nervousness, it is explained that nerve and blood-vessels lie side by side along every fibre of the system, and that the slightest touch of a nerve by the point of a pin, gives pain; as in the nerve of a tooth, the softest touch of the dentist's instrument causes an instantaneous exclamation and shrinking away.

When blood is bad from being thicker than common, — as in biliousness, when it has bile mixed with it, — or when there is too much blood, by having eaten too much and exercised too little, then in this thick state it does not move along the blood-vessels, the nerves, and arteries with its natural rapidity, any more than very muddy water would pass along a hose pipe or other channel as quick as if it were clear; the consequence is that as the heart sends on the blood as fast as ever, and as it does not pass through the arteries and veins as quick as it ought to do, there is necessarily an accumulation; for a while the blood-vessels accommodate themselves to the necessities of the case, and distend a little; then a little more, having more blood in them than belongs there; but if a vein distends, it must push against its neighbor nerve, — crowds it; the

nerve complains, just as a man complains if he is crowded a little overmuch on the street, or in a vehicle by a not over-polite neighbor; the complaint which the nerve makes is what is called "neuralgia."

In one part of the face a nerve passes through a small hole in the bone; when a blood-vessel is overfull in such a locality, the nerve cannot yield a particle; it is pressed on one side by the blood-vessel, and on the other by the unyielding bone, resulting in the most intolerable pain, called by the French, *Tic-douloureux*.

Persons subject to neuralgia are those who have no active employment, are troubled with cold feet, or constipation, or dyspepsia, — all these having a tendency to make the blood thick, impure, and sluggish; and unless these symptoms are removed, and the state of things which caused them is rectified, a cure is impossible. There are several methods of alleviation; but a permanent cure is what every reader should endeavor to accomplish, and a cure is certain if proper means are used and are persevered in.

The pain of neuralgia is caused by there being too much blood in the part affected; this is easily proven, for if a mustard plaster is put over the spot or near it, to draw the blood to the surface, the pain is removed, and will not return until the blood gradually settles at the ailing spot again. If a person is promptly bled in the arm, thus diminishing the quantity of blood in every part of the

system, relief is given in proportion to the amount of blood withdrawn.

Another method of relief is to employ purgative medicines to remove the constipation, or, if this symptom is not present, still the amount of fluids in the system is thereby diminished. But all these are unnatural remedies ; they shock the system, and do harm in other ways.

The great, the essential points are :

To diminish the amount of blood in the body ;

To obtain a purer blood ;

To secure a more equable circulation.

The always efficient method of diminishing the amount of blood in the body is to take less food, and thus cut off the supply of blood. In order to hasten this diminution, take exercise, or work ; these, as previously explained, occasion waste and wear ; the blood already in the body supplies this, and consequently the amount in the body will be diminished in the natural way.

Exercise and work not only diminish the amount of blood, but they promote the circulation, they make it equal throughout the whole body ; and when this is the case, there can be no pain. It is thus seen that, in the very nature of things, the

CERTAIN CURE OF NEURALGIA

is found in judicious eating and exercise ; and not only so, a permanent cure cannot be effected in any other way, while these are always efficient.

Some years ago a surgeon announced the instan-

taneous cure of tic-douloureux, the worst form of neuralgia, by cutting the nerve in two ; but this was only removing an effect ; the cause of bad blood, imperfect circulation, still remained, and the pain soon returned ; hence the operation was abandoned. There is no royal road to the cure of disease ; prince and pauper are subject to the same physical laws ; Croesus and king must travel the same road to health with the poorest and the most unknown. What the physician said to the sick tyrant is applicable to all : “ Your majesty has choice of four methods, — to eat less, to take more exercise, to swallow medicine, or be sick.”

No man was ever made to be a loafer ; there was beneficence in the curse, “ In the sweat of thy face shalt thou eat bread ; ” labor and health are inseparable, the world over. The bird is ever on the wing in search of food, and Infinite Beneficence has made its labor a pleasure and a delight ; the cow and the horse, as they browse in the fields, are moving all day ; the very worm burrows in the earth in search of food ; nor can man be either healthy or happy except in the industrious prosecution of mental labor or muscular activities.

In neuralgia the blood is always too thick, impure, and in excess ; and as diet and exercise combine to remedy these conditions, some rules in relation to these are desirable. These will be adapted to sedentary persons, to those who live in-doors generally, as women, students, book-keepers, and the like.

It is rather better to eat thrice a day, morning, noon, and night: that is, as soon after sunrise as practicable, for breakfast; dinner about one o'clock; supper before sundown.

Eat nothing whatever between meals.

Breakfast, a single cup of coffee or tea, some cold bread and butter, with a dish of berries or stewed fruit in summer time, and nothing else; in winter, meat, fish, or poultry, or, in their stead, a couple of soft-boiled eggs.

Supper should be made of cold bread and butter, and a cup of warm drink of some kind, and nothing else.

Dinner the same as breakfast, adding one vegetable, and some fruit, raw or stewed, as a dessert, and nothing else. A different kind of vegetable may be taken every day, for variety; the kind of meat may be changed at each meal.

The object in the specification above made is to discourage variety at meals, because it is this which tempts all to eat too much. Persons at times have felt at the table that they had eaten enough; but on seeing a very inviting dish unexpectedly brought in, another meal has been eaten of this last variety. The general and hurtful error is that too great a variety is spread on our tables, not only occasioning trouble of preparation and great loss, but also a positive injury in the temptation of the appetite. The reader may try it upon himself on any two days. A dinner of one vegetable, one kind of meat and bread; at dinner the next day,

let a great variety be presented ; he will eat double the amount at this repast, with this remarkable difference : an hour after the first meal, he will be entirely comfortable, will feel as if he had eaten quite enough ; an hour after the latter, there will be decided discomfort, a fullness, a feeling as if some kind of relief were desirable, and in too many cases a resort to the decanter, with the vain hope of a riddance in some way. It cannot be denied that the first steps towards intemperate habits have been taken in using liquors to remove the unpleasant consequences of over-eating. A very great aid towards overcoming a habit of too hearty eating will be found in sitting down to a table with only three varieties of food.

Certainly this method of getting rid of a painful disease is better than using medicine for the purpose, even if medicine were efficient ; but it is not ; sometimes it has a beneficial effect, but it is never permanent, never radical, never actually curative. But it is so much easier to take medicine than to practice self-denial at the table, and, in addition, to work for health, that the multitude are content with alleviants ; are always taking medicine, are always sick, are always life-long invalids. Let the startling truth be deeply impressed on the mind of the thinking and intelligent reader, that plain and temperate eating and bodily activities in the glorious sunshine will eradicate neuralgia.

CHAPTER X.

NERVOUSNESS.

NERVOUSNESS is another name for irritability of mind and restlessness of body ; it is the lenient, the sympathizing expression meant to convey the idea of unreasonableness ; of childishness in grown persons ; in short, a weakness of intellect. High-bred courtesy says of such an one, " He is very peculiar ; " cross at one moment, crying the next ; in one hour startled at every noise, at the very next, perhaps, in profoundest reverie ; unreliable in statement, fitful in opinion, inconsistent in conduct, unable to sleep, indisposed to work ; now in tears, then in " tantrums ; " exacting, imagining impossible things, unaccommodating, and a general disturber of the household. No one nervous person may exhibit all these characteristics at one time, but all nervous persons have more or less of them in the progress of the malady.

If a man is tightly bound, and is gently scratched with a needle on the same line, he will soon be thrown into convulsions ; this is owing to a property in the animal economy called " irritability," and through the nervous system it extends itself to the mind ; it unmans a man. It has been stated that men have been exposed to have a single drop

of water fall from a height upon the same one spot on the head while so confined as to make a change in position, to the fraction of a hair, impossible ; at first the sensation is rather pleasant, next unwelcome, disagreeable, painful, and finally the victim is left a hopeless maniac ; this is another result of an unnatural, long-continued action on the nervous system ; it is another form of nervousness, and is incompatible with general good health.

A nervous person is a sick person ; not sick in any particular part of the body, but in every hair's-breadth of it ; and it is the result of the action of a kind of blood upon the nerves, unfit for healthful use. Good, pure blood is grateful to whatever portion of the body it is sent, whether to head or heart, tooth or toe, foot or finger. If it is bad from any cause, too thin, poor or poisonous, it is not the natural food of the nerves, and causes discomfort wherever it is carried ; this discomfort is "nervousness." Anatomists have announced several practical facts which are easily demonstrated : stick the point of a needle into any portion of a man's skin, and there is pain and blood ; showing that there is no point in the human body where the faithful heart does not send its supply of life, for the blood is the life of a man ; showing also, with great conclusiveness, that nerves are equally omnipresent. The nerves feed upon the blood ; and, side by side, nerve and blood-vessel go to every pin-point of the human body. If these nerves feed

on natural, healthful blood, there is well feeling throughout the entire frame of man ; if the blood is poor, it causes an unnatural impression on every nerve, and these being multiplied into millions of filaments, each conveying to the brain its distinct complaint, no wonder there is irritation, confusion, and universal disorder of mind and discomfort of body.

THIS IS “NERVOUSNESS ;”

and if poor blood, imperfect blood, thin blood, poisonous blood, or by whatever other name it may be called, causes this disturbance, the obvious remedy is to make better, purer, richer, more natural and healthful blood. To do this, two processes are necessary : —

First, rid the system of its poor blood.

Second, supply to it a richer, purer, better material.

Divine Intelligence has so constructed us that every separate motion of every individual muscle in the whole human machine tends to work out of it whatever is foreign to itself, whatever is not a living part of its living mechanism. Whatever cannot be healthfully used by the body, is considered a foreign body. Swallow a pebble, or fruit stone, or penny, and in less than forty-eight hours it is hustled out of the living machine, as an impertinent individual is hustled out of a public assembly into the street, each member giving him a contemptuous kick in his “outward bound.” Stick a needle beyond the head into foot, or leg, or arm,

and in one year or ten, it makes its appearance at the surface, a foot or yard away.

So when unnatural blood is found in the body, the instincts of the system are to work it off and out; and to this end every motion of every muscle directly contributes, and so persistently that death alone can put a stop to the effort. What, then, we are called upon to do in getting rid of the bad blood in the body, or “nervousness,” is to

HELP NATURE.

It was just said, that every motion of every muscle aided in working the bad blood out of the body; our wisdom, then, is to increase that muscular motion, by walking one or ten miles a day, according to the necessities of the case, or, which is better than a daily walk, work in the health-giving sunshine to the same extent, and keep at it, until the wretched, mischief-making enemy is expelled from the house lately so miserable, but to be now full of health, and geniality, and sunshine, to life's happy evening.

But to facilitate this thrice welcome result, the other half of the remedy must be applied; and so benevolently are we made, and so economical was the great Architect in arranging His forces, that in this, as in many other beautiful instances in connection with the physiology of man, what accomplishes one object is made to pave the way, or is preparatory towards bringing about another not less important and equally essential object. If we get

rid of bad blood, we must supply its place, and with a good material. In the article on dyspepsia, it was shown that to procure a more vigorous and healthful digestion as a means of making a pure, strengthening blood, it was an indispensable requisite that exertive exercise should be taken, the best form of which was out-door activities. It is thus seen that nature has so arranged it that the very efforts which effect the removal of bad blood and other foreign materials from the body, do at the same time pave the way for introducing a better supply in its stead ; giving us an idea of economy of means and expenditure, which it would be well to study in all the enterprises of human life ; in plain terms, work pushes bad blood out of the body, and prepares a pure material in its place, by inducing hunger and a healthful digestion ; so that every stroke made in work, every step taken in exercise, especially if out-of-doors, and in the pursuit of some engaging or profitable object, tends to cleanse the system first, then repair, then build up, thus curing disease and establishing health on a permanent, safe, and enduring basis ; and happy is he who has clearness of perception to see the force of the reasoning, and who has the firmness of purpose and persistence of determination to follow up a steady and systematic course of judicious exercise and plain and temperate living, in the light of the suggestions just made, until triumphantly rid of that most fretting and belittling of all human ailments, "nervousness." Small progress may be

made at first ; but it will seldom happen that if the principles of treatment are carried out with reasonable fidelity and judgment, the changes observed in the system will not be sufficiently evident within a very few weeks, or even days sometimes, as to demonstrate a successful result at no distant day. There may be occasional arrests of improvement, and even “ backsets ; ” but these should inspire hope and renewed determination to conquer ; for it is reasonable to suppose that the means which are able to inaugurate an improvement in a short time, will perfect a cure, if persisted in.

Sometimes persons are made nervous whenever they take a cold : this is because the nervous system has been previously debilitated, has become the weak part of the body ; but this is in accordance with the laws of the system. When an enemy attacks a fortress, the weakest portion is assailed ; a common cold is the body’s great enemy, and it seeks to do mischief through those portions of it which are found, from any cause, to have been weakened. Persons whose voice organs have been debilitated by over-exercise in conversation, singing, or public speaking, are made hoarse as soon as they take cold, because the cold is said to “ settle ” there ; in the same manner, if a man is “ weak-chested,” has weak lungs, he will have a bad cough if he takes cold. Others again, on taking cold, will express themselves as having got rid of it by passing it off through the bowels ; that is, the bowels were weak, and diarrhœa was the result of the

cold falling on them. An estimable lady of close and correct observation says she never takes cold. It is true that she never has a cough or sore throat ; yet she has frequent and distressing attacks of biliousness ; these are often brought on by a cold ; she has a feeble circulation, is very sensitive to draughts of air, is easily chilled, loves warm rooms, warm clothing, and warm weather ; and taking but little exercise, and that infrequently, a very little thing gives her a cold, which closes the pores of the skin, and through it affects the liver ; hence an attack of biliousness is a sure result ; her colds settle on the skin.

There are other symptoms of nervousness than those already detailed ; it would be impracticable to name all. It was only intended to mention the more common ; to impress on the mind the one great practical idea, that the nervousness which results from eating too much, and exercising too little, is caused by an impure, an imperfect blood, and that the more prominent symptom, indicating that species of nervousness, was in the individual succeeding perfectly in making himself as uncomfortable as possible to the unfortunate ones who happen to come within the sphere of his malign influence. And when it is remembered that this most ungracious malady arises from the degrading sins of gluttony and laziness, and that a cure is found in a temperate and industrious life, a continuance of the misfortune is discreditably alike to mind and heart.

This disease is sometimes induced by a protracted

series of unavoidable misfortunes resulting from the ill conduct of others or a succession of deaths of loved ones ; these so acting upon delicate organizations, or on highly strung temperaments, and where there are large brains, do certainly induce a species of nervousness allied to madness in some instances ; in others there is an approach to St. Vitus' dance, where the nervous energy is so fitful, so uncontrollable, that the limbs fly in any direction, as if subject to electrical influences ; at other times the head will jerk or fall back ; there will be a regular thumping or beating in various parts of the body, — at one time in the head, another in the limbs, or sensations as if a cannon-ball had passed through the brain ; often quietude of the muscles is an impossibility, motion is a necessity ; but even for these severer forms, which command our warmest sympathies, there is a uniform cure, in regular and temperate eating of plain food, and an imperative and engrossing out-door occupation ; if these things are judiciously combined, no mortal man has any ground for fearing that he may not be restored to permanent good health in an encouragingly short time, because there is no organic disease ; it is only functional. Given a diet of bread, and meat, and cold water, a man at the plough, and the woman at the wash-tub, compulsorily, with an encouraging remuneration, — a cure will be an every-day event — a cure without a drawback, and which will last for life.

Mrs. M., the wife of a gentleman of great wealth,

fell into a nervous condition from having nothing to do. A family had been cared for, and grown up, and settled well in life; there was no object of ambition before her upon which her mental or physical energies could act, at least none for which she had a liking. "The poor ye have with you always," said the Master; and upon these she might have humanely spent herself, going about doing good, and thus have laid up for herself treasures in heaven which could not fail her, and the treasure upon earth of a healthful old age. But she preferred to take her ease, to eat, and drink, and sleep; her whole life was one of inglorious inactivity, and the human machine became clogged up; its impurities were not worked off; the blood became bad, and thick, and stagnant; the nerves, having no pure blood to feed upon, became deranged in their action; the strength declined, morbid feelings took possession of brain and body, and she became bed-ridden, seldom leaving her couch for many weeks in succession; so weak at times that it was an effort to walk across the floor or even sit up for a few moments. Medicines availed nothing. At this stage, the intelligent physician advised what seemed a desperate remedy, inasmuch as it was apparently impossible to carry it out — simply a sea voyage in a sailing vessel, of uncertain continuance, but probably of two months' duration. The suggestion was acted upon. Everything was new to her on shipboard, and supremely uncomfortable by reason of sea-sickness, and stormy

weather, and dangerous navigation, and bilge-water smell, and sleeping on shelves ; eating ship-biscuit and pilot-bread almost as hard as a stone, with old butter and half-spoiled meats ; even the water, bad enough, was scant in supply ; these things were simply terrible to a woman who had always enjoyed every comfort at home which money could procure. She thought at times that she would die, unless means were used to mitigate the calamities which seemed to have accumulated about her so unmercifully. Under these circumstances, she began to devise, and arrange, and modify, and alter so as if possible to make things at least endurable. This required mental effort and physical exertion as a necessity ; variable weather caused variable efforts ; and then there were the daily calculations, if perchance a spare hour occurred to give the mind a little rest, as to when these miseries were to end ; calm to-day, fogs to-morrow, head-winds and cross seas ; long days of steady falling rain, to compel refuge in the noisome cabin below decks ; then the matter of course, cold, chilly winds which come after rain at sea. These things together became a new world of thought and action. When land was made, she was apparently a well woman. The elements of cure in this case were small eating, bodily exertion, and compulsory mental activity in a channel wholly different from all previous experiences. The points to be noted with exceeding interest, in this narration, by every invalid are as follows : —

It was a cure of nervousness of several years' duration.

It had progressed to the extent of confinement to the house, and chamber and bed for a long time.

The patient was already an old woman, giving ground to suppose that the powers of recuperation were lost.

No medicine was used.

The rough sea took away her appetite.

The food was so bad that she could not eat it, had she been ever so hungry, except in homœopathic quantities.

Physical effort became a necessity.

Mental activity of an absorbing character was unavoidable.

With such a fact as this, surely no person need be entirely hopeless of a permanent restoration from any nervous disease of a functional character, whether it be

NERVOUS DEBILITY

or of excessive nervous action, including the lesser forms or classes of insanity, monomania, "hypo," hysterics, melancholy, or megrims. One of the items above named as a means of cure is so contrary to all human reason that it is well worth special consideration; still it is at the very foundation of every case of cure, and is contrary to the judgment of almost all persons. She ate little or nothing, for the sea took away her appetite, and the food was so wretched that she could take but very little

at a time under the most favorable circumstances ; and just here is the rock on which most invalids split in connection with eating and sickness ; they will insist upon it that they must eat something to keep up their strength, and that too, whether they have an appetite or not ; and for the sake of getting an appetite, they resort either to tonics, in the form of “bitters,” or alcoholic preparations, or the presentation of the most delicate and inviting articles of food as a means of tempting the appetite, with the unvarying result of keeping up an invalid condition for weeks, for months, for years, and alas in too many cases for a life-time !

Facts must be looked at as they are. This delicate woman—delicate by reason of her age, habits of life, and long years of illness—gradually grew strong and well by eating very small amounts of very uninviting food, simply because a weak stomach will get nourishment out of that small amount, when it could not get it out of a larger. It has power to “work up” an ounce of food ; it has not power to work up a pound. There is perhaps no single fact of as much importance as this in connection with the subject of eating and recovery from disease. Another important item is the agency of the mind in restoring the body to health, especially in all nervous affections. Something must be done in every case to compel the mind out of its usual ruts of travel, either by fear of life, as in the case named, by anxiety for the well being of loved ones, by the excitements of travel and discovery, or by encouraging prospects of pecuniary gain.

Even in severe acute or transient maladies, diseased conditions or actions are corrected in an instant's time by the agency of the mind alone, when otherwise the most powerful drugs would be necessary in large quantities, and they would be slow in action. If a woman is in a violent fit of "hysterics," she will be instantly "brought to" if she learns that the house is on fire, or if you spank her with your slipper, or put your foot in her face, or perform any other act calculated to put an indignity upon her; for her resentment is awakened, and the mind is forced to act through another channel than the one which induced the hysterical condition. Something of this sort is illustrated amusingly in the animal creation, especially in the case of the noble horse, when he becomes "balky." It was considered a wonderful feat of superior knowledge by a gaping crowd when the owner of a vehicle had tried all possible means to make his horse start off with his load, to no effect, when a countryman stepped up, took a string from his pocket, and tied it tightly around the animal's ear, then speaking to him in a brisk tone of voice, the conquered creature moved right on. When it is remembered that if a handful of mud is rubbed on the animal's nose, the same result is often reached, we find a ready solution of the efficiency of such diverse modes of treatment in the fact that both operations have one and the same effect: they divert the animal's mind. Therefore the conclusion is inevitable that an essential element in the treatment and cure

of diseases, especially those of a nervous character, is

MENTAL DIVERSION.

A lady, from causes kept in successive action for a number of years, had fallen into such a state of nervous prostration that the stomach was unable to perform its functions ; all kinds of food failed to be digested, and generated large quantities of wind ; the debility became so great that she kept her bed for a great part of the time, her head, from the great debility of the system, whirling around in dizziness and confusion the very moment it was raised from the pillow, and she would have to hold on to the bed in rising, to prevent her falling on the floor ; medicine seemed to be unavailing. She was ordered to ride on horseback. As a riding-school was most available, being under shelter, so as to allow regularity, she was conveyed to the place, and rode around the course five minutes. The prostration was such that she could not sleep the night following, except in uneasy snatches ; but by resting in bed the succeeding day, and sleeping better the second night, she was able to repeat her rides every other day, with very slow improvement at first ; but having an indomitable resolution, and being possessed of a high moral courage and force of character, she found herself at the end of six months the best rider in the school ; riding became a pleasure, and she could race her courser for an hour at a time, and felt all the better for it. Mean-

while her digestion steadily improved, her strength, weight, and flesh increased; and although many years have passed, she has better health than the average of women of her age, can travel eighteen hours out of the twenty-four in stages, steamboats, and rail-cars, eating what she can get, and whether sleeping on a shelf, in a cot, lying down, or sitting up, her health, and appetite, and digestion, and strength are all improved by it.

In this case, the entire nervous system had received such a shock, that it is fair to infer that some organic injury had been the result; at all events, she was liable at times to attacks of indigestion, the certain and effectual remedy for which is exercise on foot, out-of-doors, and the eating of good substantial food, well prepared, meats generally underdone, broiled or roasted, vegetables well cooked, and home-made bread. The advantages of out-door walks are so uniform, so direct in their good effects, that they are resorted to by her with the utmost confidence, and are kept up, no kind of weather being allowed to interfere with the daily out-door walking.

In cases of this kind as to the majority of persons, especially those living in large cities, there is such a want of energy, such an indisposition to arouse themselves to the absolute necessities of the occasion, such a want of hopefulness, that, although reason is convinced, there seems to be a physical inability, as well as mental, to coöperate with the physician; the slightest obstacles are magnified to

mountainous proportions, so that, in order to **make** a beginning, the medical adviser feels obliged to insist upon an instantaneous seat in his own carriage to be conveyed to the Riding Academy, and, even when there, to see that the unwilling patient is actually placed on a horse, before he leaves the spot; such children does disease sometimes make of persons in mature life, and of high cultivation and intelligence.

A REMEDY IN NERVOUSNESS.

There is a mental as well as a physical nervousness; both may be caused by an excess of blood in the body, as readily as by a bad blood. If the blood be in excess and pure, too much nervous energy is generated; if it be bad blood, then the nervous energy generated is unhealthful; and acts upon mind and body unhealthfully, but in either case, this nervous energy must be worked off, as surplus steam is worked off in an engine. All are familiar with the fact that when a locomotive is stopped, or a steamer is made to go slower, the steam is let off from the boiler; otherwise there would be an explosion. So in the human body, the nervous energy, the spiritual steam is unconfined; it must have exit, it must have an outgo, either upon thin air, or upon some palpable object; and as it is easier to expend the strength of the arms in work than in "beating the air," so it is easier, and better, and more healthful to have the nervous energy expended upon an object than in allowing the mind to

work upon itself, to be simply thinking, without corresponding action ; as almost every reader has experienced when waking up in the night, he begins to think upon some matter that presses on the mind unpleasantly, but, not being able to act out his thoughts, the more he thinks, the more excited he becomes ; the mind is, in a sense, feeding on itself, and in process of being consumed by its own fires ; when this is indulged in, the man sometimes works himself almost into a frenzy, everything is exaggerated into monstrous proportions, and the poor unfortunate can scarcely keep his bed ; at long length, however, he sinks into an uneasy slumber from sheer exhaustion, and when he wakes up in the morning, he feels surprised and sometimes really ashamed to think that he should have allowed such comparatively trivial things to work him up to such a pitch. Many a domestic triviality is thus handled, inflicting every day an incalculable amount of sorrow on even loving hearts.

SUNDAY IMAGININGS.

Observant physicians have frequently noticed that their out-door patients call earlier on Mondays than on any other day of the week, and are more likely to exaggerate their symptoms, having no real foundation ; it is because of the forced inactivity of the Sabbath, especially if a rainy day ; the mind became chafed by inactivity, by the vain beating of air, in running around the circle of some uneasy train of thought ; fretting, and worrying, and tor-

turing itself, in its vain imaginings. These facts, the truth of which the reflective reader must be conscious of, suggest the remedy for a large class of

NERVOUS DISEASES.

But the remedy must be applied with a wise discrimination. If the ailment be a physical nervousness, indicated by muscular restlessness, by the person not being able to remain in any one position long, the true cure, the most expeditious, is work, steady work, hour after hour; if there is no work to be done, then take more exercise, as the next best thing, and let it be kept up until there is a decided feeling that sitting down would be a luxury.

It sometimes happens that this

PHYSICAL NERVOUSNESS

becomes so aggravated, the quantity of nervous power is so great, that it is uncontrollable, chronically so, as in St. Vitus' dance; and there is reason to believe that hysteria, commonly known as

“HYSTERICIS,”

may be more properly classed among the physically nervous cases, combined to some extent, however, with the mental condition. But all that is needed in many cases of hysteria is to divert the mind, and put the body to work; this is nature's cure, always available and always efficient.

If the nervousness is mental, arising from a tem-

porary ill condition of the brain, however caused, the remedy is one — mental diversion ; and this is best accomplished, not by reading, nor conversation, nor any in-door recreation or amusement, but by going out-of-doors to work, walk, or ride. Sometimes it is wise to

GO ABOUT DOING GOOD,

which has been frequently advised, and considered admirable advice too, as full of “mother wit,” indicating a true knowledge of human nature. “If you are at all unhappy or restless in the house, without there being any special cause, the best way is to go out and help somebody.” That is well sometimes, but only an experienced physician knows how to discriminate as to the remedies to be advantageously employed in these complicated nervous complaints ; for occasionally the physical and the mental are so conjoined, that while it is safe enough, as far as the body is concerned, to advise the patient to work or exercise in the open air, the mental state is such that its requirements must be delicately met. It is a diversion to a lady, for example, to go a shopping. In ordinary circumstances this would be an agreeable diversion ; but it would be grossly out of place if the person be mourning the death of the loved and lost. At times, the mind of the patient is in a sense “shattered ;” it has worked itself out by balancing probabilities, by choosing between the horns of some unfortunate dilemma, by being placed in a state of “betweenity,” as it is expressed

sometimes. To go a shopping under such circumstances would be peculiarly inappropriate, because that is a most absorbing occupation, one which greatly debilitates, as every lady knows ; for there is many times a balancing of considerations, which is very perplexing : can I afford this higher priced material ? would not the other wear better ? is not this color “ faster ” than the other ? this might look new longest ; one article is very pretty, but is it not too late, or too early, in the season ? in truth, the considerations are numberless which are to be taken into account in a single half-hour’s shopping ; hence, to advise such a diversion when the mind has been brought already into a nervous condition by balancing, by endeavoring to choose between this and that, would be notably inappropriate. So also, if a person has become nervous in the contemplation of suffering and sickness in loved ones at home, it certainly would be out of place to be told to go about doing good to the sick and suffering in the cabins of the poor. Hence discretion must be observed in prescribing the recreations of the nervous ; they must be such as will bring into requisition the organs, or propensities, or affections which have not been exercised, which have been held in abeyance, just precisely as in the physical system ; if a man is worn out by sawing wood, he must be rested, recreated by some employment which brings a different set of muscles into requisition, while those employed by the sawing operation should, for the most part, remain quiescent. On this principle it becomes

very important in some delicate cases to advise the nervous to take exercise in the open air, but to go nowhere ; better to walk or drive to a post, and then turn back and drive home, or at least avoid having any object in connection with the exercise which would require any special mental effort ; it might be proper under such circumstances to visit some near relative ; when it would be very much out of place to make a formal call, where etiquette would be exacted ; for a certain degree of mental effort is required in such cases ; certain proprieties are to be observed, which proprieties are to be determined by conditions as varied as those of the ever-turning kaleidoscope,—conditions in some cases which never happened before, may never happen again ; and to determine how to act in these with the necessary promptitude, requires a surprising amount of mental tact and mental agility. For example, in the days of the French Revolution, a company of gentlemen and ladies were marching to the guillotine ; one of the gentlemen was in the line before a lady, — Madame Roland or some other martyr to Liberty, — and it being an inexcusable violation of the proprieties of civilization for a gentleman to precede a lady, this accomplished courtier did all that was possible under the circumstances ; turning half round, and, bowing to the lady with exquisite grace, he said, “ Excuse me, Madame ——, for having my head cut off before yours.” And who can help a feeling of pity as well as admiration of the ruling passion strong in death, when royalty entering the bed-chamber of

Lord Chesterfield, who, conscious of the contortions of the last moment, said to his superior, "Excuse the grimace!" These things are narrated to suggest a valuable practical principle to a certain class of nervous persons, under certain mental conditions; that in these conditions mental exercise, mental diversion, is most appropriate, wherein the person shall be placed in no new situation, — no situation which requires the least mental effort to know how or what to decide upon; for there are times, with the healthiest of us, when the mind is so indisposed to action that a thought is a labor, a word an effort; too weary to think, too weary to speak, because to answer a question requires a mental effort. What immeasurable cruelties are often inflicted upon loved ones while dying, in the form of questions, which in that state of exaggerated conscientiousness which dissolving nature feels on the instant of its appearing before that AUGUST ONE whose essence is "Truth," may seem to the well the easiest thing in the world to answer, but really to the sufferer require the weightiest deliberation!

"LET ME DIE IN PEACE"

were among the very last words of the great Washington, when plied with questions and remarks to within two minutes of his ceasing to breathe. Persons who are subject to very severe attacks of asthma know very well that they at times feel that even to say "yes" or "no" requires an effort which it is almost "as much as their lives are worth" to make.

CHAPTER XI.

THE UNITY OF DISEASE.

BILIOUSNESS.

NEURALGIA.

DYSPEPSIA.

NERVOUSNESS.

THESE four diseases occasion, perhaps, nine tenths of all the sufferings endured in civilized society, arising from chronic ailments ; that is, ailments which last for months and years ; sometimes better, sometimes worse. It is almost impossible to enter any household, and not find one or more of its members suffering to a greater or less extent from one of the forms of sickness named.

It has been shown indisputably that although the effects of these four ailments are very different, the immediate cause is bad blood — blood which is imperfect, impure, unnatural to the system, and hence must injure it. The cause being one, however different may be the effects in different constitutions, that cause must be removed as an essential and the very first step towards a cure, and its removal must be followed, sooner or later, by the disappearance of the effects in all cases where these effects have not been allowed to remain long enough to produce actual disorganization of some of the parts affected, or long enough to exhaust their

vitality, their power of recuperation, — such as cancer of the stomach, liver, bowels, or other parts connected with the digestive process. The cause being one, the method of removal will apply to each of the four ailments named, although this removal of the one cause may be accomplished in various ways; that is to say, if “bad blood” causes biliousness, dyspepsia, neuralgia, and nervousness, these maladies, with their effects, will be removed by whatever rectifies this bad blood; that is, removes and supplies a good, pure, healthful, and life-giving material in its stead.

Bad blood is unnatural to the body; it is essentially a foreign body; and it is physiologically impossible to introduce a foreign body into the living human body without its making instinctive efforts to cast that foreign body out of itself, and in every case it does put forth all the power it is capable of exerting to effect such a result. Not only so, but it is beautiful to contemplate that when a foreign body is introduced into the system, or when anything in it becomes foreign, as food swallowed which it cannot make a healthful use of by reason of its being improper in quality, quantity, or mode of preparation, the system seems to become alarmed, and, ceasing some of its ordinary work, it concentrates its energies towards the removal of this foreign body, this internal enemy. For example, if a man eats too much, he either becomes “sick at stomach,” and Nature summons all her energy to enable him to vomit it up and cast it out in disgust,

or drawing fluids from certain reservoirs of the system, dashes them in upon the bowels in unusual quantities to flood away the offending mass, and in this we have the friendly diarrhœa, which many ignorantly "stop," and thus oftentimes thwart Nature, and by so doing destroy life in a few days. There is something similar in the intelligence of

THE LITTLE BUSY BEE

when any "foreigner" enters the hive.

In the case of the human body, it has already been shown that when anything foreign to it is to be excluded, ordinary work is suspended in some directions, and continues suspended until the work of exclusion is completed; hence the weakness which follows diarrhœa and many other forms of disease; it is because Nature has summoned extra efforts to her aid, requires rest, time for recuperation; and our highest wisdom in the treatment of all diseases is to discover what Nature wants to do, then to help her in the work, and finally to do what is possible to recover from the greater or less exhaustion occasioned by her extra efforts to protect, defend, and recover her strength. When food has become a foreign body in the stomach by its remaining there undigested, the appetite is taken away, as if Nature foresaw that her strength ought to be husbanded for the purpose of being expended on the extrusion, instead of asking for more food, which would require additional power for digestion. It seems as if there was a living and reasoning intelligence called into

requisition in these cases, in so beautifully and wisely adapting the means to the end.

In reference to the existence of bad blood in the body as foreign matter, two things are essentially necessary to the recovery of health, as has been already explained. First, the bad blood must be got rid of. Second, a pure material must be substituted.

It has also been shown as a ruling principle in the living organism, that when there is any foreign substance in the body, the action of every limb, and muscle, and fibre tends to work and push that foreign substance outwards, whether it be undigested food, a bullet, a needle, or bad blood, for all are alike unnatural and foreign; hence it seems to follow intuitively that as a means of helping Nature, we should increase the action of limb, and muscle, and fibre, by going to work, if you please; or, in the event of having nothing to do, take mere exercise,—that is better than nothing,—and keep it up persistently day after day, until the desired thing is accomplished. And as the muddiest spring will run itself as clear as a bell in time, so will the human body run itself clear of its bad blood, in most cases, if not interfered with, by means even of the involuntary motions and operations of its internal machinery, but much sooner if these involuntary movements are aided by voluntary exercise in the open air.

And if exercise works the bad blood of biliousness out of the system, it will do the same thing

with equal certainty, with a most gratifying uniformity as to the other three ailments, dyspepsia, neuralgia, and nervousness, showing that there is a certain unity in disease as well as a unity in the mode of cure.

There is a great variety of ailments, an infinitude of combinations of symptoms, which would appear hopelessly complicated, but to the professional mind they are promptly classified, and in many cases traced to a single cause, — to the wrong action or want of action in a single organ ; and by rectifying that condition a host of symptoms will promptly disappear. Hence the cause may be one, the effects various ; but the one remedy, by removing the one cause, may cure a dozen or more of the symptoms of the one disease.

CHAPTER XII.

AIR AND EXERCISE.

THE importance of exposure to the out-door air as a means of recovery from disease in general, and especially from the ailments more specially considered in these pages, can scarcely be over-estimated ; and yet it is only within two or three years that public attention has been definitely directed to the glorious sunshine as a remedial agent of very great power. There is a genial warmth in the sunlight, a vitality, a life-giving energy never found in any form of artificial heat, and then there is in the comparative purity of out-door air a power of cleansing, of building up, a power to energize peculiar to itself, and of a value not to be expressed by figures in its healthful influence on the human system. Since attention has been specially drawn to these very practical points by two or three men, armed with incontrovertible facts, their consideration has been forced upon official attention ; facts have been gradually gathered, and deductions drawn therefrom leading to the suggestion of a proposition from high authority, the very announcement of which will fairly shock the reader as one of the greatest inhumanities of modern times, —

BURNING EVERY HOSPITAL TO ASHES,

rather than pursue the present system of huddling hundreds and thousands of the unfortunate sick under the same roof, where every sight, every sound, every association, is of a depressing character. There is nothing curative in the yells of the maniac, in the shrieks of the amputated, in the groans of the dying. The consumptive can never get well as long as a sepulchral cough comes from every room in the building; the dyspeptic will rather be hastened to the grave if he meets a skin-covered skeleton in every corridor or at every turn in the street: the moral as well as the physical atmosphere should be genial, and pure, and life-giving; everything to elevate, nothing to depress. There is not one cubic inch of pure air within any four walls. It is a familiar fact that one by one of a family died until a window-glass was broken in winter, and the keen-sighted physician forbade its repair; and there were no more deaths, and the remnant soon returned to vigorous health. There is an odor about every hospital which threatens death to the invalid who is long exposed to it.

The first fact which broke in upon the minds of observant physicians was, that as to surgical operations in hospitals, the larger the hospital, the sooner the persons operated on died, and the greater was the number of deaths in proportion to the number operated upon, in spite of the increased skill which larger practice gave, in spite of the better nursing

which follows experience. The astounding fact presents itself that in the great lying-in hospitals of St. Petersburg, of Vienna, Dublin, and London, one woman out of forty-four dies in her confinement ; in Paris, one out of every nineteen ; while in small hospitals there is only one death in two hundred and eighty-two ; and among persons who live in creviced shanties, where the blessed out-door air will force itself, there is but one death in twelve hundred confinements.

Our surgeons frequently noticed during the civil war that the number of persons dying in the rude buildings erected on the battle-field was far less than among those sent to city hospitals. The same conclusive facts presented themselves to European surgeons in the Crimean War, that when the wounded were scattered among the huts and hovels by the way-side, they recovered with greater promptitude and with far greater frequency than when sent to city hospitals provided with all possible facilities, comforts, and advantages ; and when the large hospitals were so much crowded that no more could be received, and little huts and shanties had to be erected within sight of these same hospitals, the occupants of the latter convalesced more rapidly, and died in far less numbers, as compared with those in the main buildings : hence the serious discussion among medical men in the old world as to the propriety of abolishing all large hospitals, and distributing their inmates, so that but very few should be congregated under any one roof. Facts like these

ought to make an indelible impression on every intelligent reader as to the value of a **free** exposure to out-door air in promoting recovery from all the diseases to which humanity is liable.

The plausible theories which do not stand the test of actual experiment, however beautiful they may be, are absolutely worthless ; hence it is thought proper to introduce here various illustrations of the practical and successful carrying out of the principles of cure as to the four ailments named, and of others of an allied nature.

Mrs. M——, of C——, had been a great invalid for years ; she was reduced to a skeleton, had a constant hacking cough, was greatly debilitated, and seemed to her family to be in the advanced stages of **consumption** ; she seldom attempted to leave her chamber. At this juncture she learned that a married daughter was very ill, and greatly desired to see her in Philadelphia. As this involved a journey of eight hundred miles across the Alleghany Mountains, the very thought of it seemed preposterous, as at that time there were no canals or railroads, and such a trip would have to be made on horseback or by the mail-stage. A physician was consulted, who decided that, being a clear case of dyspepsia, a horseback journey was not only desirable, but proper, possible, practicable, and very certain of highly beneficial results. The next morning the invalid left Cincinnati for Philadelphia, and travelled one hour in the forenoon, rested until next day, made one hour in the forenoon, and another in the

afternoon, increasing the time and distance but a little every day ; stopping with great regularity, travelling only between sunrise and sunset, and eating at three regular hours. In less than two months the journey was completed, with increasing strength, appetite, and flesh, with apparent good health twenty years later.

The circumstances which aided most in securing so great a change in the health of this patient were,

First, The motive of the journey. All of a mother's affections and humanities were roused ; it was a sick daughter yearning to see her, and whom she might not see on earth again if time was not improved, and the journey promptly undertaken. These considerations waked up the waning energies, and swept away a thousand little obstacles with contempt, which under other circumstances might have appeared formidable ; hence it is insisted that in order to obtain extraordinary results in the effort to regain health by out-door activities, the moral element is of very great importance ; there must be a motive for the exercise ; and in proportion as it is absorbing by reason of the interest, pleasure, and profit connected with it, in such proportion will prompt, marked, and decisive good results follow.

Second, The mode of performing the journey. It was to be made on horseback ; this gave a longer exposure to the breathing of a pure out-door air, with less fatigue than if engaged in work. In addition there was no strain, no haste, no worry ; no getting overheated, then cooling off too quickly, to

engender colds, coughs, pleurisies, lung-fever, and the like.

Third, Another advantage in this form of exercise was that it could be regulated according to circumstances ; the patient could travel a mile a day, or thirty, or more, as the system seemed to be able to bear the fatigue, which in no case needed to be excessive ; when an invalid works or exercises until so weary as to be expressed by being

COMPLETELY FAGGED OUT,

more harm has been done than all the previous exercise had done good ; that is, all the benefits of the previous exercise have been nullified. In her journey the lady was soon able to ride twelve or fifteen or more miles in the forenoon, when she began to feel hungry ; then, stopping at some neat country inn, she rested awhile, took a good dinner, and in an hour thereafter was on her winding way again, and travelling some dozen miles farther brought her to near sundown, to lay by until next morning after breakfast. Whenever the weather was inclement, she remained a day or two or more, more favorable news from her daughter having made great haste less imperative. Taking it altogether, this form of travel with one or two cheerful, considerate, and intelligent companions is one of the best possible as a means of recovering from a great variety of diseases, and very especially those which have been named at the head of Chapter XI.

R—— B—— left Princeton Seminary as a young

minister with shattered health ; in a few weeks he began to “ spit blood,” a cough came on, emaciation followed, and it was soon whispered among his nearest friends that he was a hopeless consumptive ; as a last resort, it was arranged that he should take a missionary tour from New York through the Southern States on horseback. His heart was in the work ; full of enthusiasm in his Master’s cause, he seemed to feel that he was literally fulfilling the command, —

AS YE GO, PREACH.

This was done with such increasing advantage that the plan was persisted in, and at the age of sixty-five he was one of the strongest, sturdiest, well built men of his time. He had lived to stand before kings, had met with almost every sovereign in Europe, and crowned heads were ever glad to do him honor and greet him with a cordial welcome. He was raised from the dead by persistent out-door activities, and the plentiful eating of plain, wholesome, nutritious food.

Within a year Miss W——, aged nineteen, was sent to Maine from New York city for her health ; it was a beautiful country home ; her friends and kindred gave her a cordial welcome ; but she was so feeble, so emaciated, had such a wan appearance, that they wondered among themselves why her parents should have sent her there to die. Her disease was

DYSPEPSIA AND LIVER COMPLAINT.

There were headache, cold feet, costive bowels, hectic chills, nauseated stomach, dreadful dreams, sleepless nights, and such a feeling of debility and depression that it was pitiful to behold her. She had received certain instructions from home, as to eating, exercise, out-door employments; and having occupied a high position as a teacher in a public school, she had advantages of mental culture, of force of will, and of decision of character which were of essential service to her. She was out-of-doors all of daylight, she went a berrying, she went a haying, she went a bird-nesting, she rode horses, she played games, she sang songs, thumped on the piano, milked the cows, danced jigs, climbed trees, and went around generally; with the result that in the first five weeks she had gained eleven pounds, and returned to Brooklyn in the autumn with a ruddiness of cheek, a rotundity of person, an elasticity of step, and brightness of eye which showed her to be a woman in superior health. But perhaps it is waste of paper to have given this narration, for it is too much to hope for that there could be found a dozen in a million who possessed the energy of this

YOUNG SCHOOL-MISTRESS.

But there is the way to health, and let those who come after, and are wise, follow it. Every physician of wide experience can give similar cases from his

note-book, yet it will avail but little. Now and then a person of force of character may be found to go and do likewise, in reference to the course of this young school-girl, but the multitude will go on as before, procrastinating, experimenting on tonics, and sirups, and troches, and bitters, and brandy, until the constitution is made a wreck, and rest is found, rest from bodily torment, only in

THE FRIENDLY GRAVE.

A lady of unusual intelligence from Rochester, New York, in connection with some advice previously had from a physician, stated that she had discovered, in her case at least, a sovereign remedy for biliousness was living for a few days on very plain, but substantial, nourishing food, such as her appetite craved, and taking long out-door walks. A similar course can be easily tried by the reader, and would doubtless be followed by encouraging results in very many cases.

PHYSIC AND MEDICINE

are associated in our minds with all that is disagreeable, nauseous, and disgusting. The word "physic" was used by the Greeks, in its application to disease, as meaning to "bring forth," bringing out of the body that which caused sickness, as an emetic brings from the stomach that which causes nausea, or a cathartic that which causes distress in the bowels. The Romans, however, used the word "medicine" in a more expressive sense, as something which had

a “healing” power; but in these later ages, with the increased and increasing knowledge of the nineteenth century and the nearer approach of the millennium, we may arrive at a better way, and find remedies for disease in more palatable things than pills and potions, than tartar and jalap, aloes and asafœtida.

CHAPTER XIII.

FOOD CURE

THERE is reason to believe that the happy time will come when we may be able to remedy disease by the free use of sugar candy, cordials, plum-cake, and roast beef. The world has gradually fallen into the use of medicine in disease from the simple observation of cause and effect; and the result has been, that the practice of medicine, in the hands of the educated physician, has been reduced to a science, in several directions to a mathematical certainty, despite the antics of a few who are willing for a mess of pottage, the raising of a laugh, to make a jest at the expense of their profession.

It has been observed that tartar emetic, introduced into the stomach, caused vomiting; it has been used a million times, and a million times has exhibited the same effect; hence when tartar emetic is swallowed, we feel sure of the result. The next step was a deduction. If tartar emetic taken into the stomach causes vomiting, causes the stomach to empty itself, then, if there is anything in the stomach which we want out of it, it is a very natural conclusion that tartar emetic is "good for" making the stomach "stand and deliver." It came by degrees to be noticed that opium caused sleepiness if

swallowed ; a million times opium was swallowed, and a million times were the recipients made sleepy ; hence the very natural inference that opium was “ good for ” putting a man to sleep ; and when men want to go to sleep, they know that they can do so if they swallow a little opium. Hence the various things which are used for remedies in disease have come by degrees into use, — some by accident, others by induction, and all more or less relied upon. The general idea of medicine is, then, that it is something which will remove some disagreeable sensation, some “ symptom ” of disease. It is, then, fair to infer that whatever uniformly removes a symptom, is a medicine. If a man is as

BLUE AS INDIGO,

in reference to depression of spirits caused by the want of a dollar to buy him a dinner, give him a ten-dollar bill, and he will be one of the happiest of mortals — until the ten is gone ; a million times give a ten, and a million times will he brighten up most amazingly, and naturally we begin to feel a perfect conviction that money is “ good for ” low spirits and very many other “ symptoms ; ” hence

MONEY IS A MEDICINE,

efficient, easy to take, and, like all other “ simple ” remedies, “ will do no harm if it does no good.” In the same line of reasoning it will be shown that various articles of food are medicinal, are good for removing symptoms of a disease, and hence can be

used medicinally in a considerable variety of cases of actual suffering; and the time may be nearer than is generally supposed when a sick man will be restored to permanent health by good eating.

SALT

may be regarded as an article of human food. There is no other as safe and uniformly efficient remedy for arresting that alarming symptom, hemorrhage, more commonly known as

SPITTING BLOOD.

We know that it creates thirst; the system may supply this want by absorbing the more watery particles of the blood, this instantly diminishes the volume of the fluid, thus arresting the quantity and the power of the flow; hence salt is a remedy, a medicine which is good for arresting bleeding from the lungs.

A lump of salt swallowed or forced into the stomach has been known to arrest convulsions, especially those forms connected with

EPILEPSY.

Intelligent readers know that after eating a water-melon the urination is very largely increased; it seems to have a prompt and powerful stimulating effect on the action of the kidneys. We know that in cholera and several other forms of disease when urination ceases death is inevitable, unless this function is very speedily reëstab-

lished; the inference, then, may well be drawn, there are conditions in cholera wherein

WATER-MELONS

might be taken with a reasonable probability of saving life, and may be beneficially taken in other forms of disease, in which it may be desirable to “act upon the kidneys.”

All physicians of all schools know that

CALOMEL

“acts” upon the liver, and with the utmost certainty, with a certainty almost approaching to infallibility; and being tasteless, requiring only a small quantity, and as safe, perhaps, as any drug known to man, if taken with intelligence, it is relied upon and used with increasing confidence, the world over, and probably will be to the end of time, when it is desirable to act on the liver, to stimulate it to do more and better work. Why water-melon acts on the kidneys, calomel on the liver, tartar emetic on the stomach, and castor-oil on the bowels, we may never know; but that they do these things uniformly, always, is an admitted truth; hence they are “good for” such disorders; the delicious water-melon as “good for” the kidneys as the hated calomel is “good for” the liver. But

DIARRHŒA AND DYSENTERY

are akin to cholera in their nature. Diarrhœa is an excess of fluid in the discharges from the bowels;

if that excess of fluid can be drawn from the bowels to some other part of the body, which has a less weakening effect, then a step has been made towards curing the diarrhœa ; hence, if a person suffering from diarrhœa had the appetite and the opportunity to “ take ” a good water-melon, it might be his salvation.

Six years ago a lady from New York was attacked with a painful, debilitating, and alarming bowel complaint ; ordinary remedies proved unavailing ; she was tormented with excessive thirst, and the water there was so brackish that it did no good to drink it ; accidentally a very fine large water-melon was at hand ; she ate it ravenously, her symptoms changed almost on the instant, and in two or three days she was in her usual health ; the water-melon “ acted ” upon the kidneys, changed the direction of the drains upon the system, and she was saved.

Within a week of this writing, a writer in “ The Medical and Surgical Journal ” says tersely, “ A lady had suffered from diarrhœa, which was growing worse, and had decided to take medicine in the afternoon. At dinner she ate heartily of water-melon, and thought no more of the diarrhœa, had one passage after dinner, took more water-melon at tea, and was afterward entirely free from her complaint.”

It may be reasonably inferred that water-melon is “ good for ” all fevers ; we know very well that fevers are “ carried away ” by free urination ; that the urine itself is the vehicle which conveys from

the body a very large proportion of its dead, waste, useless, and diseased material ; and it would seem that to promote the action of the kidneys was but to hasten the cure of the fever, and that the luscious water-melon was a cure for fevers, and their name is Legion ; certain it is that if there is an appetite for it, and the stomach will bear it, it must of necessity be a very valuable febrifuge. It is authoritatively stated that a few years ago, an American physician, then in South America, treated eight cases of yellow fever with water-melons ; he gave each patient half a one at a time, and there was not a single death. The hint for this mode of practice was taken from an incident under his own observation. He had a patient under his own care previously who had yellow fever. The case appeared desperate, and he left him late at night expecting him to die ; next morning, to his great surprise, he found him greatly better, and he eventually recovered. During the night the patient crawled on his hands and knees, while his watchers were asleep, to an adjoining room, where there was a pile of water-melons ; he ate to his fill, and the change in his condition was attributed to beneficial effects of the melons.

CABBAGE

is usually prepared for the table by boiling, and is considered strong food, as being fit only for the most robust men and of hardy constitutions ; and from the fact that it requires five hours for its digestion in the

stomach while ordinary food is digested in about half the time, it would seem that it with fat pork, another five-hour food, might well be banished from our tables. At the same time a good raw cabbage, fresh and crisp, cut up in thread-like pieces and eaten with good vinegar, is digested in about an hour, and, as has been stated in a previous page, is "good for" a weak stomach and a poor digestion; it certainly is a palatable dish, and has remedial virtues in all those cases where the instinct calls for it, and where it can be taken with a relish, without subsequent discomfort.

NERVOUS DYSPEPSIA

is often occasioned by the unnatural distention and consequent weakening of the large intestine, and in this state it is often thrust from its natural position; this distention is the result of constipation, or accumulated gases, and there is no remedy but the removal of that confined condition of the bowels.

NEW CIDER

may be considered an article of the table, not hard to take, and, as many know, passes through the bowels, carrying everything before it; and to this extent is good for nervous dyspepsia, one of the most distressing of human maladies, for it not only makes the sufferer miserable, but all who are thrown within the sphere of his associations. Fruits and berries of every description are admirable remedies in this and all other cases where a free condition of the bowels is desirable.

ROAST BEEF

is good for a hungry man, and, as most persons know, is good for a starving man. But within a year or two it has come to be considered by eminent medical men that raw beef, minced up, may be administered with a reasonable certainty of success in that distressing malady,

DYSENTERY,

distinguished by its bloody passages, and that terrible and fruitless desire of passing something from the body ; these two symptoms distinguish this from all other maladies, known extensively in some portions of our country as

BLOODY FLUX.

Raw minced beef, administered as the almost sole article of food, at the usual intervals of eating, and in quantities as great as the patient can conveniently and comfortably swallow, seems to have an admirable effect in mastering the disease in question ; and even in consumption, it seems to assimilate so readily with the system, in supplying flesh where flesh is so much needed, that some physicians are prescribing it, and with this agreeable circumstance, that although it is so repellant to our tastes at first thought to be eating raw, bloody meat, yet the stomach soon becomes reconciled to it, and even to crave it. In the case of one of the members of the Cabinet, recently deceased, who had been using

it in the hope of its benefiting him in his sufferings from disease of the lungs, there seemed to be such a liking for it, that when the last meal was brought to his bedside, his eye brightened, and he exclaimed, "Ah! that is a dish good enough for a king."

When raw beef is administered for dysentery, indicated by bloody discharges and a most distressing and ineffectual "bearing down," it should be minced very fine, and given every four hours, a table-spoonful at a time, eating nothing else meanwhile.

Celery is considered an efficient remedy in some diseases of the kidneys.

Bananas have been repeatedly used with gratifying success in cases of chronic diarrhœa.

Not only has costiveness been removed by the free use of fruits and berries, raw, ripe, and perfect, but they are often employed advantageously in the bowel complaints of summer.

Teething children have been often cured of looseness of bowels by being allowed to chew the rind of bacon freely, with some of its fat attached; and they chew it greedily; it seems to have a beneficial effect on the gums also.

Some of the most troublesome forms of diarrhœa have been arrested by parching common rice brown, like roasted coffee, then boiling and using in the ordinary way; and with bodily quietude, it often cures when nothing else will.

A heaping tea-spoonful or two of common salt

and common kitchen ground-mustard, stirred rapidly in a glass of water and drank quickly, sets the person vomiting almost the instant it reaches the stomach, thus making it admirably adapted to cases of poisoning or overloaded stomach.

When a poison has been swallowed, a tablespoonful or two, in addition, of olive or other sweet oil, makes assurance doubly sure. A tea-cupful of very strong coffee will nullify the effects of opium.

Very many poisons, especially of the metallic kind, are made instantly harmless, if the whites of two or three eggs are promptly swallowed.

Superficial scalds and burns have the pain instantly arrested by immersing the parts in cold water; sprinkle common flour over the injured parts as soon as it can be procured, until no more will stick on,—the point being to completely cover the skin from the air; if the flour falls off, apply more. In a few days a new skin will be formed, and the flour will either cake off, or it may be loosened or dissolved by holding the injured part under warm water; let it fall off; if it is picked off, the very tender new skin may be broken, and healing retarded.

Erysipelas often comes on without any warning, and proves fatal in a few days; but if the parts are promptly covered with a poultice of pounded raw cranberries, a cure is effected within a week.

Insect and rattlesnake bites have proved harmless, by applying a plaster made of common salt and the yolk of an egg.

Neuralgia and toothache have been sometimes arrested by applying to the wrist a quantity of grated horse-radish.

Tomatoes make an agreeable and efficient remedy for costive bowels, if eaten raw or cooked, acting mechanically by the seeds coming in contact with the mucous surface of the bowels, and thus stimulating their action like white mustard-seed or figs.

Five ounces of sugar a day will, according to Banting's observations, increase a man's weight one pound in a week.

Common sweet cider, boiled down to one half or less, makes an excellent sirup for the coughs and colds of children; it is pleasant to the taste, and will keep good for a year in a cool cellar.

Persons, in recovering from sickness, sometimes have a great desire for a cooling drink, a little acid; it is instinct craving the acid, which acts upon the liver; this is made by allowing cider to come slowly to a boil; let it gradually cool, place it in good casks in a cool cellar, and it will keep good for years.

Powdered red pepper, best to be had from good druggists under the name of "capsicum," is a great promoter of a good digestion in cases of weak stomach, if taken freely in soups and on meats; it has a stimulating power like alcohol, without any of its exciting or narcotic effects.

The common grape has such a wide range of beneficial influence over disease that there are

Several establishments in Germany under the name of "The Grape Cure." If the seeds are swallowed, costiveness is obviated; if the pulp is eaten, it is a pure nutriment, and is soothing to irritated bowels; if the pulp and seeds are removed, and the remainder chewed, there is a liquid obtained from the skins which is a valuable astringent in loose bowels: in this case the skins should not be swallowed.

For several years there was at Heidelberg the "Molken Cure," or the milk cure, where buttermilk, sweet milk, and sour milk were used to meet different diseased conditions. The general effect of buttermilk is to act on the kidneys; to promote, by its acidity, a gentle impression on the liver, and thus a favorable influence over all febrile and bilious diseases.

As boiled milk promotes costiveness, it may be used to advantage as a food in loose bowels, especially where they will not tolerate solid food.

Sweet milk, if largely used by sedentary persons, has the effect seemingly to cause biliousness in some and constipation in others; it may be for this reason that the Germans are said to make it sour by using rennet, and thus increase the activity of the liver.

CRACKED WHEAT,

or the whole grain broken into several pieces, and then boiled until quite soft, is advocated by high medical authority, corroborated by the experience of many intelligent persons, as useful in promot-

ing a free condition of the bowels, in addition to its nourishing qualities. It can be eaten alone, or with salt, butter, sirup, milk, or sugar, according to the taste of the person using it ; it may be well to employ it in these different ways alternately, otherwise the sameness may cause the stomach to disrelish it. Cracked wheat will make a good breakfast or supper of itself, and should be thus used if it is intended to obtain its healthful effects as a loosener of the bowels ; but when this object has been accomplished, it may then be employed only occasionally, as any other food, so as to have something to fall back upon in case of need. It operates on the bowels by having a large amount of waste, which, descending to the lower bowel, distends it, as would an injection of water or any other fluid ; and this distention promotes a discharge from the system, as effectual and more naturally than an injection. But in addition to its good effects in this direction, it contains an ingredient, in the nature of lime, which promotes the growth and strength of the bones, gives fine, solid, strong teeth, which not only beautify the face, but so completely divide the food which is eaten into such small pieces that its digestion is greatly facilitated and hastened, and thus very much is done toward promoting the health of the system, imparting vigor to the body, power to the brain, and life and elasticity to the whole man. The human system will derive nearly double the amount of nutriment and strength from ten pounds of wheat as from

ten pounds of what is called the best flour in the market.

Corn (Indian) prepared as cracked wheat, and called "hominy," coarse or fine, gives more warmth, but not as much of the flesh-forming principle; hence the instincts of the Western people make "hog and hominy" go together, while New Englanders glory in "pork and beans."

Scientific investigation seems of late to point to the fact that as the brain must be fed on phosphoric food, eggs and fish, which have a large amount of this ingredient, are best adapted to thinkers. And it may be that the old become senile, fall into second childhood, have softening of the brain, because it is starved, has not as much of its vital food sent to it as it requires; that using it so much, ordinary foods cannot supply the requisite amount of the craved material. That such foods should be used in these cases, which has a larger proportion of that element which the brain feeds upon, seems to be a just conclusion. The bread upon our tables is valued in proportion to its whiteness; some bakers pamper this prejudice, by adding drugs to their flour to increase the whiteness and cover the defects of the damaged material used. But chemical analysis shows that near one half of the most substantial brain-nourishing portion of wheat is wanting in very fine flour, the phosphoric acid being contained mainly in the bran and shorts. To give power to the brain, strength to the bones, and beauty and durability to the teeth, it amounts

to a demonstration that from the time of weaning, the bread material consumed by the child, until the teens are nearly passed, should be made of the whole material of the grain of wheat, either in the shape of wheaten grits or bran or brown bread; and the common sense, the affection, and the duty of intelligent parents are hereby appealed to, to investigate this most important practical subject, and act upon it, under the influence of a high moral principle.

The facts which have been stated in reference to the curative agency of the articles on our tables, of employing food as a medicine, which will not only prevent disease, but cure it in many of its more common forms, are commended to the candid consideration of intelligent minds.¹

¹ See Note III. page 273.

CHAPTER XIV.

“HEALTH BY GOOD LIVING.” — THE ARGUMENT.

No educated physician, of any school, will deny that vigorous health antagonizes disease, enables the body to live above sickness. A fort may have brave men enough within its walls to repel any attack which may be made against it. A man may have such a stock of high health as to resist the most destructive diseases.

A DRUNKARD

is never well. A man who drinks largely is never well — is never in good health. It is a known fact that when the Asiatic cholera visits a community, its drunkards die first; the feeble of all classes die first.

Sickness is debility, either of the whole body or parts of it. Health is strength; they are absolutely inseparable.

All human strength is derived from the food eaten, and can be derived from no other source. To keep up the strength, a man must eat, and he cannot do it in any other way. To keep up the strength is to keep the general health at a high point.

It must then follow that, to keep well, we must eat well. To eat well, we must have the best food, prepared in the best manner, — that is, prepared in such a way that the stomach may digest it most easily, — and thus obtain the largest amount of nutriment with the least effort to the system. This is

“GOOD LIVING,”

in the sense in which the title of this book is used. This “good living” must have for its precedent a good appetite, and must be followed by a good digestion; and these can be obtained, in all attainable cases, by

AIR AND EXERCISE.

The consumption of a large amount of out-door air, and the employment of a large amount of muscular activities in this out-door air, are the great highways to a vigorous appetite, a good digestion, high health, and exemption from disease, as well as to the cure of half the ordinary maladies of humanity. The successive steps to the

EARTHLY ELYSIUM

of vigorous health and a long life are air, exercise, appetite, and digestion of good food, prepared in the best manner. But as to recovery from disease, this book will be read in vain, unless these steps are taken in their proper order; and it is here

the great mistake is made by the multitude. Hence it is proposed to point out definitely and plainly how a man must proceed in order to get well of

Biliousness,
Dyspepsia,
Neuralgia,
Nervousness,

and many other of the more common ailments, by
“good living,” instead of physic.

CHAPTER XV.

REST.

IF a man is sick, and feels indisposed to exercise, he will generally aggravate the disease, and protract its cure, if he persists in exercising. For example, in diarrhœa, dysentery, and cholera, exercise is certain death; and a like result will follow in many other forms of disease, when instinct calls loudly for repose. A mere indisposition to effort is another thing; that is simply laziness; and to distinguish between the two, it is only necessary to observe that if the weariness is increased by exercise, if every step is an effort and a drag, then every step taken is a positive injury, and rest in bed is called for. If, on the other hand, a person feels better for the exercise taken in moderation, then it is a clear indication that it should be repeated, leisurely; for a while, increase the time; then, as the strength increases, let the exercise be a little more active; in this way, feel your way along, and be on the safe side.

All the rest of an invalid should be taken in an atmosphere which enables him to feel comfortably warm in every part of the body. Cold air is not necessarily pure, nor is warm air necessarily impure; but under all circumstances, whether of rest

or exercise, there should not be a sensation of coldness for an instant in any square inch of the whole person ; the very moment the very slightest feeling of chilliness is felt along the back, or anywhere else, very considerable harm has been done, and either additional clothing, or bed-cover, or fuel should be ordered.

A USEFUL LESSON

may be taken, in this connection, from the animal creation. The dog, if ailing, lies down ; there is rest ; he curls himself up in the smallest roll possible, with his paw over his nose, as if to keep out the cold air, and present as little surface to the atmosphere as can well be done, thus endeavoring to secure

WARMTH.

The little canary-bird, in its sickness, contracts itself to a ball, and hides its tiny bill under its wing, in both these ways seeking to promote warmth and keep away the chill of death.

Rest and warmth, then, must be given to the sick, for these two things are powerful aids in recovering them from disease, because they help directly in removing from the body the bad, and waste, and poisonous matters which cause its sickness. The warmth liquefies the solids, then converts them into gases, in which form they pass out of the body through the breath, the insensible perspiration, and the urine, from one to two, or three, or more pounds in twenty-four hours. Out-door exercise and mus-

cular activities have been insisted upon in the previous pages as important elements in the cure of disease, because muscular motion is essential toward working bad, diseased, and foreign matters out of the system, and this is true in its fullest, widest extent ; but it must be borne in mind that there are two forms of muscular activities, — voluntary, as when we move the hand or foot, and involuntary, such as are beyond our control, yet are ceaselessly in operation. The heart, for example, beats always, beats ever ; the stomach, the alimentary canal in its entire length of twenty-five or thirty feet, and the whole glandular economy, all are at work busier than the busiest bee ; so that while we are lying still in bed, there is busy motion in every part of the machinery of man, to the extent of pushing outside of the body one or more pounds of waste, foreign, or otherwise injurious matter. There are circumstances in which the body, although in comparative rest, may throw off a much larger amount of its substance in twenty-four hours, as will be shown by the following

TERRIBLE NARRATION.

In August, 1868, Captain Job R. Rounseville, in a whaling voyage in the Atlantic Ocean, was shipwrecked ; everything eatable was washed overboard. The captain and four of the crew clung to the wreck for eight days without food or water, during which the thought of food scarcely entered their minds, their burning thirst crowding out every other sensation. Each tongue was swollen, and hung

within the mouth ; where it did touch the roof of the mouth, it stuck there, then scaled off in large flakes ; when a boat from a passing vessel at last came alongside, they could but slide into it helplessly. Two of the sailors were entirely naked, and had been for a week, and the whole surface of their bodies was blistered ; they were the merest skeletons. The captain, who weighed before the wreck a hundred and ninety pounds, weighed barely one hundred, having lost nearly ninety pounds in eight days, or eleven pounds a day, without any active exercise, beyond that of clinging to the wreck. They were so weak that one tea-spoonful of brandy at a time was too much for them. On reaching the ship they became unconscious, and remained so for two days. This statement shows how much the human system may throw off from itself in twenty-four hours.

When instinct prompts rest, it is a relative term, meaning the rest of only the voluntary muscles. When this wise instinct does not prompt to rest, but seems to urge voluntary motion, to urge the doing of something, and we cannot stay in bed, are impatient of confinement to the house, then the voluntary activities should be followed out wisely to the fullest extent ; and of these, the more deliberate are best ; over-effort, over-exertion, exhaustive exercises and labors, and strifes, and games, especially those of a competitive character, are not the best or safest in recovery from disease ; the leisure walk, the moderate work, deliberate lifting, — these are best.

It generally happens that in all sickness in which the person feels indisposed to exercise, a day or two will suffice to work a change ; for in this day or two, from two to ten pounds have been pushed out of the system. We call it

“FALLING OFF,”

and look upon it with undisguised apprehension ; it is a falling away, it is true, but it is simply, in ordinary cases, a good riddance to the body of that much bad matter, and is preparatory towards demanding a replenishment in the way of something good to eat ; and this is precisely the explanation of the marvelous recoveries of many who have been left to die out-of-doors, from murderous wounds in battle, or the ruffianly assaults of savages, or attacks of ruthless diseases, and help was nowhere to be found. In many cases there was inability to move for hours and days, during which time the system was relieving itself of its oppressive loads, by the involuntary motions of its internal machinery ; and for these hours and days, many times, there was nothing to be had to eat, even had there been an appetite ; but after a time, a load having been removed and the body rested, without nursing and without food, the unfortunate begins to get able to crawl to some friendly puddle or spring or river's brink, and satisfies his thirst ; then comes the hunger, which makes leaves and roots taste as sweet as honey ; and soon he is upon his feet again, and enters a human habitation, and is regarded as one

RISEN FROM THE DEAD.

We have only to follow this teaching of Nature, and rid ourselves speedily of a large share of human sickness, — thus : keep comfortably warm, take rest, and wait until hunger comes ; then gratify the appetite wisely, and health will come, ourselves almost passive the mean while ; then we become active, to the extent of providing such good food as will impart its strength to the system with the least expenditure of stomach power. It will be observed that in the application of the theory of “ health by good living,” there is a degree of passivity in the treatment of acute diseases, — those which last but for a few days ; that in these there is warmth, rest, and a waiting for an appetite, which is brought about by involuntary exercises or activities, and which are constantly in operation, within us ; but as to

CHRONIC DISEASES,

those which last for months and years, continuously or at intervals, such as the principal ones named in these pages, there is a similar process of cure as far as it goes ; the wastes and impurities must be first worked out of the body. But it must not be left to the involuntary activities to do this ; the voluntary must be added, so as to hasten the result, that we may get rid of three or four or five pounds of waste matter in a day instead of one or two, and thus hasten on the good appetite which is to

call for healthful material, which is to take the place of the useless and diseased matters just got rid of. At this very point, however, the great difficulty comes in of curing disease and of securing "health by good living." Men are not only unwilling to take the systematic out-door exercises requisite, but they are unwilling to wait for the appetite, and actually force upon the weak and oppressed and overburdened system one or two pounds of food and drink at each meal, before nature is ready to receive it. Some have decision enough to take the exercise, but have not the steady courage to wait for the appetite.

A CURE.

A lady of large means, cultivation, and social position was attacked with severe headache, distressing nausea, and very great general discomfort. She had strong faith in the virtue of fresh air and out-door exercise; for some days she spent a good part of the time in the open air, in walking, riding, shopping, etc., not only without any benefit, but with increasing discomfort. Her attention was drawn to the fact that she was eating four times a day. At breakfast or dinner she would take the whole breast of a four-pound chicken, or the tenderloin of a porter-house steak of equal weight, with other things in proportion. During this time she had no craving for food, yet would sit down to the table and nibble first at one thing and then at another, managing in the end to make a good meal. While eating, her various discomforts were abated

or disappeared ; but a while afterwards the nausea, the headache, the eructations, and other discomforts, and, not the least, a distressing nervousness and restlessness, returned with aggravations. At length spells of vomiting came on of nauseous, bitter, acid materials, with such increasing nervousness that she would pass a whole night with only very transient snatches of unsatisfying sleep, and her days were as comfortless as her nights, falling off steadily, with increasing weakness. She had a theory that her dyspeptic symptoms arose from taking cold, and there was no difficulty in pointing out the causes of the colds, and of explaining to her own satisfaction how the colds gave indigestion, by acting in some unexplained way on the nerves of the stomach ; but attributing her indigestion to colds, instead of to the fact of over-eating, her attention was directed to avoiding colds, while the real cause, too much food, was altogether overlooked.

On the day above named, she was advised and consented to take for breakfast a cup of weak tea, some stale bread, and some good butter ; at noon some soup, with the crust of stale bread broken into it ; and at supper a cup of tea, and nothing else, — with the result of no eructations, a fair night's sleep, less headache, less nausea, and a greater ability for out-door exercise. On the third day she felt so much better that she thought she might safely return to a more liberal diet, with the result of an immediate reappearance of all her symptoms ; her eating was again abated, and

on the fifth day there was but a trace of the original symptoms, and she gradually returned to her usual health. This case has been detailed specifically and at length, to convince the reader of a single fact of considerable practical value, that while this lady ate without an appetite, and ate largely,

TO KEEP UP THE STRENGTH,

she became weaker ; but just as soon as she began to eat less, a little soup and stale bread only, through the day, she, within four days, was able to walk over two miles ; to be out four hours at a time, and be all the better for it the next day ; proving that a weak stomach will derive more strength, obtain more nutriment, from a small amount of food than from a large amount ; derive more strength from a diet of bread and soup than from half a pound or more of porter-house steak or poultry, with other things in proportion. This single fact should be ever present to the invalid, for it is of incalculable practical value. This lady was hungry for the soup. She ate the beefsteak without avidity. The unsubstantial soup gave more strength than the solid steak. It was the vigorous appetite which made all the difference ; hence, in endeavoring to remove the symptoms of disease, the first step is to get the appetite, and then have the “ good living,” as the more direct means of securing permanent good health. The soup gave strength, which enabled the patient to take more exercise ; this hastened the removal of waste and hurtful matters

from the system, and thus made a large supply necessary, and a stronger appetite for this increased supply.

When persons are recovering from sickness, — and this is applicable to all invalids, — they should cease eating before the appetite is satisfied ; that is,

LEAVE OFF HUNGRY.

This is imperative. Those who are in perfect health, and lead an active life, may eat as much as they want at regular meals, if they eat very slowly ; but such a practice is exceedingly hurtful to those who have not good health, especially to the dyspeptic. The sum of the argument of this book is simply this : —

In all ordinary sickness the system is oppressed by the presence of hurtful matters within itself.

These matters are worked out of the system by the internal involuntary and the external voluntary motions or exercises of the individual, to the extent of from two to ten pounds a day. When these matters are thus worked off, there arises within us an instinctive desire for food, as a means of replacing this loss, which desire is called appetite. This food must not be supplied until thus called for decidedly by the sensation of hunger. This feeling must be gratified by eating substantial, nourishing food. When hunger is appeased, interesting, pleasurable, remunerative employment in the open air should be taken after each meal, to the extent of digesting it fully, and as a means of causing hunger for another meal.

These things, persevered in with reasonable fidelity and judgment, will cure all curable diseases in a time proportioned to the hold they have taken on the system and the ravages they have made : the requirements being to work waste, foreign, useless, and hurtful matters out of the system, by patiently waiting for the involuntary motions of the system to do it, or in appropriate cases to hasten the result by voluntary exercise ; and when in due time this is accomplished, and Nature indicates her desire for food by the sense of hunger, that she is ready to take food as a means of replacing with healthful, nutritious matter the particles which have been removed, we must eat thrice a day, at not less than five hours' interval, as a general rule, a moderate amount of substantial, nourishing food, well prepared, cut up in pea-sized pieces, to be chewed and swallowed with deliberation in a cheerful frame of mind, leaving off while yet hungry ; preferring those articles which are most relished, and which are not followed by any bodily discomfort or symptom whatever, with the understanding that the last meal of the day should be about sunset, and should be made of a cup of warm drink with the crust of stale bread, or bran, or brown bread, if it can be eaten without subsequent discomfort.

The breakfast and the dinner should be made of any kind of meat, fish, or poultry, with cold stale bread and butter, and a cup of warm drink. At dinner a single vegetable may be added, a different one

every day or two, and no dessert ; it would be better if some good hot, well-seasoned soup should precede each dinner. After breakfast exercise should be taken in the open air to digest the food perfectly, and be continued until a good appetite is obtained for dinner ; there should be some rest between the exercise and the dinner. After dinner quietude for half an hour or more should be observed as to the body, exhilaration and joyousness as to the mind ; then exercise should follow, deliberate for the first half-hour, and continued until moderately tired ; then rest in a room comfortably warm until an early tea. Then, if possible, go somewhere for mental exhilaration or social enjoyment, remembering that night air out-of-doors is purer and better than any in-door air, an hour after sunset, — the only precaution needed being to keep in motion with sufficient activity to keep off a feeling of chilliness. As the strength increases, so should the amount of food taken, and the exercise in vigor and duration until the health is entirely restored ; and then remember that the means which have made you well will keep you well.

The sole object of want of variety of food in the meals proposed is to aid the person to resist eating too much ; for the greater the variety, the more are we tempted to take, — just as the unexpected appearance of a favorite dish after a good dinner, and when we felt that we had eaten enough and did not want any more, too often tempts us to make almost another meal of it.

APPENDIX.

No. I.—DIGESTIBILITY OF FOOD.

IN ALPHABETICAL ORDER.

Name.	Mode of Preparation.	Time of Digestion
		H. M.
Aponeurosis (gristle)	Boiled	3 30
Apples, mellow	Raw	2 50
Apples, sour, hard	Raw	2 50
Apples, sweet and mellow	Raw	1 50
Barley	Boiled	2 00
Bass, striped	Broiled	3 00
Beans, pod	Boiled	2 30
Beans, with green corn	Boiled	3 45
Beef	Roasted	3 00
Beefsteak	Broiled	3 00
Beef, old, salted	Boiled	4 15
Beets	Boiled	3 45
Brains, animal	Boiled	1 45
Bread, corn	Baked	3 15
Bread, wheat	Baked	3 30
Butter	Melted	3 30
Cabbage	Raw	2 30
Cabbage and vinegar	Raw	2 00
Cabbage	Boiled	4 30
Carrot	Boiled	3 15
Cartilage (gristle)	Boiled	4 15
Catfish	Fried	3 30
Cheese, old	Raw	3 30
Chicken	Fricasseed	3 45
Codfish, dry	Boiled	2 00
Corn cake	Baked	3 00
Corn, green, and beans	Boiled	3 45
Custard	Baked	2 45
Duck, tame	Roasted	4 00
Duck, wild	Roasted	4 50
Dumpling, apple	Boiled	3 00
Eggs, hard	Boiled	3 30
Eggs, soft	Boiled	3 00
Eggs	Fried	3 30

Name.	Mode of Preparation.	Time of Digestion
		H. M.
Eggs	Roasted	2 15
Eggs	Raw	2 00
Eggs	Whipped	1 30
Flounders	Fried	2 30
Fowls, roasted or	Boiled	4 00
Gelatine	Boiled	2 30
Goose, wild	Roasted	2 30
Heart, animal	Fried	4 00
Lamb	Boiled	2 30
Liver	Boiled	2 00
Marrow	Boiled	2 40
Meat and vegetables	Hashed	2 30
Milk	Raw	2 15
Milk	Boiled	2 00
Mutton	Roast	3 15
Mutton, broiled or	Boiled	3 00
Oysters	Raw	2 55
Oysters	Roasted	3 15
Oysters	Stewed	3 30
Parsnips	Boiled	2 30
Pig	Roasted	2 30
Pigs' feet	Soused	1 00
Pork	Roast	5 15
Pork	Boiled	4 30
Pork, raw or	Fried	4 15
Pork	Broiled	3 15
Pork	Stewed	3 00
Potatoes	Boiled	3 30
Potatoes	Baked	3 30
Potatoes	Roasted	2 30
Rice	Boiled	1 00
Salmon, fresh	Boiled	1 45
Sausage	Fried	4 00
Soup, barley	Boiled	1 30
Soup, bean	Boiled	3 00
Soup, beef and vegetables	Boiled	4 00
Soup, chicken	Boiled	3 00
Soup, marrow bones	Boiled	5 00
Soup, oysters or mutton	Boiled	3 30
Suet, beef	Boiled	5 30
Tapioca	Boiled	2 00
Tendon	Boiled	5 30
Tripe	Fried	1 30
Tripe	Soused	1 00
Trout and salmon	Boiled	1 00
Turkey, boiled or	Roasted	2 30
Turnips	Boiled	3 30

Name.	Mode of Preparation.	Time of Digestion
		H. M.
Veal	Broiled	4 00
Veal	Fried	4 30
Vegetables and meat	Warmed	3 30
Venison steak	Broiled	1 35

No. II. — DIGESTIBILITY OF FOOD.

IN ORDER OF TIME.

THE following table of the digestibility of the most common articles of food, prepared from standard authorities, is approximately correct, and is of very general practical interest: —

Quality.	Preparation.	Time of Digestion.
		H. M.
Cole slaw		1 00
Rice	Boiled	1 00
Pigs' feet, soused	Boiled	1 00
Tripe, soused	Boiled	1 00
Eggs, whipped	Raw	1 30
Trout, salmon, fresh	Boiled	1 30
Trout, salmon, fresh	Fried	1 30
Soup, barley	Boiled	1 30
Apples, sweet, mellow	Raw	1 30
Venison steak	Boiled	1 35
Brains, animal	Boiled	1 45
Sago	Boiled	1 45
Tapioca	Boiled	2 00
Barley	Boiled	2 00
Milk	Boiled	2 00
Liver, beef's, fresh	Boiled	2 00
Eggs, fresh	Raw	2 00
Codfish, cured dry	Boiled	2 00
Apples, sour, mellow	Raw	2 00
Cabbage, with vinegar	Raw	2 00
Milk	Raw	2 15
Eggs, fresh	Roasted	2 15
Turkey, wild	Roasted	2 18
Turkey, domestic	Boiled	2 25
Gelatine	Boiled	2 25
Turkey, domestic	Roasted	2 30

Quality.	Preparation.	Time of Digestion	
		H.	M.
Goose, wild	Roasted	2	30
Pig, sucking	Roasted	2	30
Lamb, fresh	Broiled	2	30
Hash, meat and vegetables	Warmed	2	30
Beans, pod	Boiled	2	30
Cake, sponge	Baked	2	30
Parsnips	Boiled	2	30
Potatoes, Irish	Roasted	2	30
Cabbage, head	Raw	2	30
Spinal marrow, animal	Boiled	2	40
Chicken, full grown	Fricasseed	2	45
Custard	Baked	2	45
Beef, with salt only	Boiled	2	45
Apples, sour, hard	Raw	2	50
Oysters, fresh	Raw	2	55
Eggs, fresh	Soft boiled	3	00
Bass, striped, fresh	Broiled	3	00
Beef, fresh, lean, rare	Roasted	3	00
Pork, recently salted	Stewed	3	00
Mutton, fresh	Broiled	3	00
Soup	Boiled	3	00
Chicken soup	Boiled	3	00
Aponeurosis	Boiled	3	00
Dumpling, apple	Boiled	3	00
Cake, corn	Baked	3	00
Oysters, fresh	Roasted	3	15
Pork steak	Broiled	3	15
Mutton, fresh	Roasted	3	15
Bread, corn	Baked	3	15
Carrot, orange	Boiled	3	15
Sausage, fresh	Broiled	3	30
Flounder, fresh	Fried	3	30
Catfish, fresh	Fried	3	30
Oysters, fresh	Stewed	3	30
Butter	Melted	3	30
Cheese, old, strong	Raw	3	30
Soup, mutton	Boiled	3	30
Oyster soup	Boiled	3	30
Bread, wheat, fresh	Baked	3	30
Turnips, flat	Boiled	3	30
Potatoes, Irish	Boiled	3	30
Eggs, fresh	H'd boiled	3	30
Green corn and beans	Boiled	3	45
Beets	Boiled	3	45
Salmon, salted	Boiled	4	00
Beef	Fried	4	00
Veal, fresh	Broiled	4	00

Quality.	Preparation.	Time of Digestion	
		H.	M.
Fowls, domestic	Roasted	4	00
Soup, beef, vegetables, and bread	Boiled	4	00
Heart, animal	Fried	4	00
Beef, old, hard, salted	Boiled	4	15
Soup, marrow-bones	Boiled	4	15
Cartilage	Boiled	4	15
Pork, recently salted	Boiled	4	30
Veal, fresh	Fried	4	30
Ducks, wild	Roasted	4	30
Suet, mutton	Boiled	4	30
Cabbage	Boiled	4	30
Pork, fat and lean	Roasted	5	15
Tendon	Boiled	5	30
Suet, beef, fresh	Boiled	5	30

No. III.—NUTRITIOUSNESS OF FOOD.

THE following table from authentic sources shows the ascertained percentage of nutriment in the common articles of table consumption. Boiled rice being the easiest of digestion, because the quickest, is marked ten; boiled cabbage is two; roast pork, boiled tendon, and beef-suet, requiring five and a half hours to be digested, would be one, or the lowest grade of digestibility. One important practical bearing of the table is that the most nutritious food should be eaten, as boiled rice, when the bowels are loose; but when constipated, that which has most waste should be eaten, as boiled turnips, because the more waste, the greater is the accumulation of this waste in the lower bowel, which acts in proportion as it is distended by such accumulation.

Kind of Food.	Preparation.	Per cent. of Nutriment.	Time of Digestion.	Ease of Digestion.
			H. M.	
Almonds	Raw	66	— —	—
Apples	Raw	10	1 30	5
Apricots	Raw	26	— —	—
Barley	Boiled	92	2 00	5
Beans, dry	Boiled	87	2 30	4
Beef	Roast	26	3 30	3
Blood	—	22	— —	—
Bread	Baked	80	3 30	3
Cabbage	Boiled	7	4 30	2
Carrots	Boiled	10	3 15	3
Cherries	Raw	25	2 00	5
Chickens	Fricassee	27	2 45	4
Codfish	Boiled	21	2 00	5
Cucumbers	Raw	2	— —	—
Eggs	Whipped	13	1 30	7
Flour, bolted	In bread	21	— —	—
Flour, unbolted	In bread	35	— —	—
Gooseberries	Raw	19	2 00	6
Grapes	Raw	27	2 30	6
Haddock	Boiled	18	2 30	4
Melons	Raw	3	2 00	5
Milk	Raw	7	2 15	5
Mutton	Roast	30	3 15	3
Oatmeal	Baked	74	3 30	3
Oils	Raw	96	3 30	3
Pease, dry	Boiled	93	2 30	4
Peaches	Raw	20	2 00	4
Pears	Raw	10	3 30	6
Plums	Raw	29	2 30	4
Pork	Roast	21	5 15	2
Potatoes	Boiled	13	2 30	4
Rice	Boiled	88	1 00	10
Rye flour	Baked	79	3 30	3
Sole	Fried	21	3 00	4
Soup, barley	Boiled	20	1 30	7
Strawberries	Raw	12	2 00	6
Turnips	Boiled	4	3 30	8
Veal	Fried	25	4 30	2
Venison	Broiled	22	1 30	7
Wheat bread	Baked	95	3 30	3

No. IV.—ELEMENTS OF FOOD.

THE ultimate ingredients of all food are carbon to warm, and nitrogen to make flesh. Some have no carbon, others no nitrogen ; some have both in varying proportions ; all have water or waste from five to ninety per cent. The table below is the result of the researches of the ablest chemists of the age. The amount of solid matter in an article of food does not mean that amount of nutriment ; for a portion of it may be woody fibre, or waste, or lime, chalk, iron, or other mineral. The cipher indicates that not one per cent. of the element is found ; n. a., not ascertained ; blanks mean no published or reliable statements have been made. The more water, the more waste ; for even woody fibre and iron have their essential uses in the system. This and other food tables in this volume should be regarded as merely approximative ; they are not so much intended to live by as for guidance in diseased conditions. For example, if constipated, it is better to use rough food, such as has much waste and little nutriment, as fruits, berries, and the like ; concentrated food, as boiled rice, is best for loose bowels ; sirups, and oils, and milk cause biliousness and fevers ; sours, as berries, fruits, and cole slaw, cure fevers. It is safer, however, especially in health, to eat by instinct rather than by rules or scientific tables.

In 100 parts of, there is per centage of	Solid Matter.	Water.
Arabic, gum.....	88	12
Artichokes	28	80
Apricots	25	75
Arrowroot.....	82	18
Almond oil.....	100	0
Butter	83	17
Bread	68	32

In 100 parts of, there is per- centage of	Solid Matter.	Water.
Beans.....	87	14
Blood.....	20	80
Beef, fresh.....	25	75
Beef tea.....	2	98
Cabbage.....	8	92
Carrots.....	12	88
Cherries.....	25	75
Cucumbers.....	3	97
Candy.....	90	10
Egg, white of.....	20	80
Egg, yolk.....	46	54
Fish, average.....	20	80
Figs.....	84	16
Gooseberries.....	18	81
Hogs' lard.....	100	0
Isinglass.....	92	7
Leguminous seeds.....	0	0
Lentils.....	84	16
Manna.....	—	40
Mutton suet.....	100	—
Milk of cow.....	13	87
Milk of ass.....	8	92
Milk of goat.....	13	86
Olive oil.....	100	—
Oats.....	79	21
Oatmeal.....	83	7
Oysters.....	13	87
Pease.....	84	16
Potatoes.....	24	76
Peaches.....	20	80
Pears.....	16	84
Poultry.....	23	77
Rye.....	83	17
Sugar, average.....	—	—
Starch, average.....	84	16
Wheat.....	86	14

No. V. — WARMTH AND STRENGTH.

ALL food contains nitrogen, the element which supplies 'muscle,' flesh, strength, and carbon, giving warmth; some articles contain both in various proportions. The colder the weather, the more carbonized food do we

require. Pure alcohol is almost wholly carbon, and all alcoholic drinks are proportionately so, beer having only five per cent. of alcohol ; but, having no nitrogen, they cannot add a single particle of flesh to the system, and consequently not one particle of strength, of power to labor. A man feels stronger after taking a drink of spirits, but it is not added strength ; it is only strength preternaturally drawn in advance from the store on hand for current use, the nervous system having been stimulated to make that draught by the influence which the alcohol had upon it ; but when the system comes to use the strength naturally prepared for it, and finds it has been already appropriated, it “sinks” under the disappointment, so to speak, to a depth proportioned to the strength or quantity of the alcohol used. The sinking experienced in delirium tremens is precisely of this nature, and is almost too horrible to be borne. All know that when the liquor “dies” within a man, he is as weak and powerless as a new-born infant, and this comes upon him suddenly. On the other hand, food and drink, which contain nitrogen, give flesh, create the power to labor ; and the strength which is thus added is for current use, is substantial and enduring. Hence alcohol is not a true tonic, has no really valuable medicinal or curative virtue in any malady known to man.

Kind of Food.	Carbon, or Warmth Producer.	Nitrogen, or Flesh Producer.
Artichokes	9	—
Arrowroot	82	—
Almond oil	77	—
Apples	45	—
Bread, wheat	52	8
Buttermilk	7	4
Beef, lean	19	4
Beef, fat	30	15
Bacon, green	67	7
Bacon, dried	73	9

Kind of Food.	Carbon, or Warmth Producer.	Nitrogen, or Flesh Producer.
Butter and oils	83	—
Beer and porter	9	1
Beans	37	—
Blood	10	3
Carrots	22	2
Cream	30	3
Cheddar cheese	31	28
Cheese, common	6	45
Candy	43	—
Eels	14	10
Eggs, entire	10	14
Eggs, white	—	20
Eggs, yelk	16	30
Fish	3	18
Gum Arabic	36	—
Hog's lard	79	—
Leguminous Seeds	37	—
Lentils	37	—
Molasses	77	—
Meal (Indian), corn	77	11
Meal, barley	77	6
Meal, rye	75	8
Meal, oat	69	13
Meal, wheat or flour	72	10
Milk, new	9	4
Mutton suet	77	—
Mutton, lean	18	5
Mutton, fat	31	12
Olive oil	77	—
Oats	40	2
Oysters	36	—
Ox liver	4	19
Pease	59	23
Potatoes	22	2
Parsnips	16	1
Pork	49	10
Poultry	4	21
Rice	80	6
Rye	39	2
Starch	36	—
Sugar	95	—
Salmon	6	16
Tripe	16	13
Turnips	7	1
Veal	16	17

No. VI. — MILK.

PERFECT food is prepared for the young of animals and man ; hence in milk and the egg are found all the elements necessary for growth and support. In ten pounds of milk there are of —

Water	8 $\frac{5}{10}$ pounds.
Caseine or cheese	$\frac{5}{10}$ pound.
Sugar	$\frac{4}{10}$ pound.
Butter	$\frac{3}{10}$ pound.
Lime, etc.	$\frac{3}{10}$ pound.

Goats' milk, 80 parts caseine, 40 sugar, 40 butter.

Cows' milk, 63 parts caseine, 28 sugar, 40 butter.

Human milk, 32 parts caseine, 26 sugar, 29 butter.

Butter and sugar warm the system ; the caseine, representing the cheesy portion of milk, supplies strength and repairs the waste ; hence the young of animals, being obliged to use their limbs so much earlier than children, must have more caseine to repair the greater waste made by the necessity of a greater amount of effort needed for their out-door life and various necessities peculiar to their state and condition.

No. VII.

In the following table is given the proportion of nutriment and the proportion of fuel in a given quantity of food : —

Milk contains one proportion of nutriment, 2 of fuel.
Beans contain one proportion of nutriment, $2\frac{1}{2}$ of fuel.
Oatmeal contains one proportion of nutriment, 5 of fuel.
Barley contains one proportion of nutriment, 7 of fuel.
Wheat contains one proportion of nutriment, 8 of fuel.
Potatoes contain one proportion of nutriment, 9 of fuel.
Rice contains one proportion of nutriment, 10 of fuel.

Arrowroot contains one proportion of nutriment, 26 of fuel.

Tapioca contains one proportion of nutriment, 26 of fuel.

Sago contains one proportion of nutriment, 26 of fuel.

Starch contains one proportion of nutriment, 40 of fuel.

The last named articles are given to young children, because they require a great deal of warmth. But they need more than warmth; if fed on these alone, they would soon die; hence milk must be added to these, as it contains materials for growth and repair.

No. VIII.

If human milk be considered as having 100 of nutritive equivalents, —

VEGETABLES DRIED.			
Rice will have . . .	81	Haricots . . .	283
Potatoes . . .	84	Beans . . .	320
Maize . . .	100	ANIMAL FOOD.	
Rye . . .	106	Human milk . . .	100
Radish . . .	106	Cows' milk . . .	237
Wheat . . .	119	Yolk of eggs . . .	305
Barley . . .	125	Oysters . . .	305
Oats . . .	138	Cheese . . .	331
White bread . . .	142	Eel . . .	434
Black bread . . .	166	Mussell . . .	528
Pease . . .	239	Beef liver . . .	570
Lentils . . .	276	Pigeon . . .	756
		Mutton . . .	773

A nation, as well as the individual, should know how to use its food economically. This table is suggestive in that direction; and it will interest the reader to compare the amount of nutriment contained in the different articles above named, making human milk the starting-point; thus a pound of mutton contains nearly as much nourishment as eight pounds of milk. The muscular strength of a nation depends upon the proper use and proportions of the various kinds of food eaten; and it has been well said that the political influence of a

nation is as much dependent upon the muscular strength of the people as upon their intelligence and commercial activity. Englishmen and roast beef are synonyms; and for centuries past the English nation has been the most powerful, the most influential nation on the globe; a long-lived, intellectual, and powerful race, as to the individuals composing it, founded on vigorous "health" as a result of "good living." The preceding table is only to be used for comparative purposes, as approximative, because other practical considerations would modify the result in any given case. But a table has been prepared by Dr. Letheby, one of the most eminent men in the medical profession in Great Britain, and was communicated to the Society of Arts in one of the "Cantor Lectures," and may be considered as authentic. To prepare such a table has required an immense amount of labor and research; it will be of permanent scientific and practical value, and reflects great credit on the indefatigable investigator.

No. IX. — NUTRITIVE VALUES OF FOOD.

	Water.	Albumen, etc.	Starch, etc.	Sugar.	Fat.	Salts.	Total per cent.		Carbonaceous to one Nitrogenous.
							Nitro- genous.	Carbena- ceous.	
Bread.....	37	8.1	47.4	3.6	1.6	2.3	8.1	52.6	6.5
Wheat flour...	15	10.8	66.3	4.2	2.0	1.7	10.8	72.5	6.7
Barley meal...	15	6.3	69.4	4.9	2.4	2.0	6.3	76.7	12.2
Oatmeal.....	15	12.6	58.4	5.4	5.6	3.0	12.6	69.4	5.5
Rye meal.....	15	8.0	69.5	3.7	2.0	1.8	8.0	75.2	9.4
Indian meal..	14	11.1	64.7	0.4	8.1	1.7	11.1	73.2	6.6
Rice.....	13	6.3	79.1	0.4	0.7	0.5	6.3	80.2	12.7
Pease.....	15	23.0	55.4	2.0	2.1	2.5	23.0	59.0	2.5
Arrowroot....	18	-	82.0	-	-	-	-	82.0	-
Potatoes.....	75	2.1	18.8	3.2	0.2	0.7	2.1	22.2	10.6
Carrots.....	83	1.3	8.4	6.1	0.2	1.0	1.3	14.7	11.2
Parsnips.....	82	1.1	9.6	5.8	0.5	1.0	1.1	15.9	14.5
Turnips.....	91	1.2	5.1	2.1	-	0.6	1.2	7.2	6.0
Sugar.....	5	-	-	95.0	-	-	-	95.0	-
Truacle.....	23	-	-	77.0	-	-	-	77.0	-
New milk.....	86	4.1	-	5.2	3.9	0.8	4.1	9.1	2.2
Cream.....	66	2.7	-	2.8	26.7	1.8	2.7	29.5	10.9
Skim milk....	88	4.0	-	5.4	1.8	0.8	4.0	7.2	1.6
Buttermilk...	88	4.1	-	6.4	0.7	0.8	4.1	7.1	1.7
Cheddar cheese	36	28.4	-	-	31.1	4.5	28.4	31.1	1.1
Skim cheese...	44	44.8	-	-	6.3	4.9	44.8	6.3	0.1
Lean beef.....	72	19.3	-	-	3.6	5.1	19.3	3.6	0.2
Fat beef.....	51	14.8	-	-	29.8	4.4	14.8	29.8	2.0
Lean mutton..	72	18.3	-	-	4.9	4.8	18.3	4.9	0.3
Fat mutton...	53	12.4	-	-	31.1	3.5	12.4	31.1	2.5
Veal.....	63	16.5	-	-	15.8	4.7	16.5	15.8	1.0
Fat pork.....	39	9.8	-	-	48.9	2.3	9.8	48.9	5.0
Green bacon...	24	7.1	-	-	66.8	2.2	7.1	66.8	9.4
Dried bacon...	15	8.8	-	-	73.3	2.9	8.8	73.3	8.3
Ox liver.....	74	18.9	-	-	4.1	3.0	18.9	4.1	0.2
Tripe.....	68	13.2	-	-	16.4	2.4	13.2	16.4	1.3
Poultry.....	74	21.0	-	-	3.8	1.2	21.0	3.8	0.2
White fish....	78	18.1	-	-	2.9	1.0	18.1	2.9	0.2
Eels.....	75	9.9	-	-	13.8	1.3	9.9	13.8	1.4
Salmon.....	77	16.1	-	-	5.5	1.4	16.1	5.5	0.3
Entire egg....	74	14.0	-	-	10.5	1.5	14.0	10.5	0.7
White of eggs..	78	20.4	-	-	-	1.6	20.4	-	-
Yolk of egg....	52	16.0	-	-	30.7	1.3	16.0	30.7	1.9
Butter and fats	15	-	-	-	83.0	2.0	-	83.0	-
Beer and porter	91	0.1	-	8.7	-	0.2	0.1	8.7	87.0

Eminent physiological investigators have found that the amount of food daily necessary to keep a person in health must be enough to yield four thousand one hundred grains of carbon, and one hundred and ninety grains of nitrogen; counting seven thousand grains avoirdupois to one pound, it is possible for a person to live in health on an amount of food which would yield a little over half a pound of nutriment, not counting the water drank, or the air breathed.

Dr. Edward Smith, of London, says that the amounts required for sustaining health, are for an

	Grains of Carbon.	Grains of Nitrogen.
Adult woman,	3900	180
Adult man,	4300	200
	<hr/>	<hr/>
Average adult,	4100	190

These proportions would be obtained in about two and a quarter pounds of good wheat bread. On this foundation the following interesting table has been prepared. The cost is in English money, and at English prices; multiplying the English penny by two will give very nearly the price in our gold and silver.

No. X.—NUTRITIVE VALUES OF FOOD.

	Grains per Pound.		Value per Pound.	Grains for One Penny.		Weekly Cost of Famine Diet for	
	Carbon.	Nitrogen.		Carbon.	Nitrogen.	Carbon.	Nitrogen.
			Pence.			Pence.	Pence.
Split pease	2730	255	1	2730	255	10.5	5.2
Indian meal	2800	123	1	2800	123	10.2	10.8
Barley meal	2730	70	1	2730	70	10.5	19.0
Rye meal	2660	88	1½	2128	70	13.5	19.0
Seconds flour . . .	2660	120	1½	1773	80	16.2	16.6
Oatmeal	2800	140	2	1400	70	20.4	19.0
Bakers' bread . . .	1995	90	1½	1330	60	21.6	22.1
Pearl barley	2660	91	2	1330	45	21.6	29.5
Rice	2730	70	2	1365	35	20.5	38.0
Potatoes	770	24	0½	1540	48	18.6	27.7
Turnips	238	13	0½	476	26	60.3	51.1
Green vegetables	420	14	0	840	24	34.1	55.4
Carrots	385	14	1	385	14	74.8	95.0
Parsnips	421	12	1	421	12	66.4	110.8
Sugar	2800	-	5	560	-	51.2	-
Treacle	2200	-	1	2200	-	13.0	-
Buttermilk	335	35	0½	670	70	42.8	19.0
Whey	154	13	0¼	626	52	45.8	25.6
Skimmed milk . . .	350	84	1	350	34	82.2	39.1
New milk	378	35	2	189	18	154.0	73.9
Skim cheese	2348	364	3	783	121	36.6	11.0
Cheddar cheese	2520	315	3	315	39	91.1	34.1
Bullocks' liver . .	1226	210	3	408	70	70.3	19.0
Mutton	2902	140	5	580	23	49.5	47.5
Beef	2301	175	8	238	22	99.6	60.5
Fresh pork	2950	108	7	421	15	68.1	88.7
Dry bacon	4270	98	9	474	11	60.5	120.9
Green bacon	3990	79	8	492	10	53.3	133.0
White fish	900	130	2	450	65	63.8	20.4
Red herrings . . .	1435	217	4	359	54	80.0	24.6
Dripping	5320	-	6	887	-	32.3	-
Suet	4710	-	7	673	-	42.6	-
Lard	4819	-	9	535	-	53.6	-
Salt butter	4585	-	12	382	-	75.1	-
Fresh butter . . .	4712	-	16	294	-	97.6	-
Cocoa	3934	140	4	933	35	29.2	38.0
Beer and porter	315	1	1	315	1	91.1	1890.0

No. XI.—FLOUR TABLE.

BRAN BREAD, AND WHITE WHEATEN BREAD.

Vegetable Food	Pounds per Bushel.	Amount of Nitrogen.	Mineral Matter
Fine flour,	56	1.70	0.71
Seconds,	56	1.86	0.99
Sharps,	26	2.40	2.90
Fine Pollards,	16	2.43	6.00
Bran,	12	2.40	7.00

Much has been said of the superior healthfulness of brown bread over white, and still the masses will use the whitest flour they can get. The writer knows a very wealthy owner of flour-mills, who, from principle, uses bran bread on his family table, but supplies the whitest flour to his servants, otherwise they would not live with him a week. Is the instinct of the servant nearer right than the intellect of the master?

From the above table it will be seen that a bushel of bran has nearly seven times as much mineral matter as a bushel of fine flour. It is this mineral matter which mainly gives strength to the bones, and beauty and lastingness to the teeth, and vigor to the brain, and power to the muscles; that is, this mineral matter, or "ash," utilizes the nitrogen and the carbon derived from our food. But investigation shows that half of the bran is indigestible, even if passed through half a dozen animals in succession; secondly, it is so irritating, by its jagged points coming in contact with the delicate coating of the bowels, that it forces the food through the alimentary canal in healthy persons before it is fully digested, hence causes waste. Hence, as was said in a previous page, it is beneficial to those whose bowels are too slow, constipated; and the caution was there given,

that when taken to remove constipation, it should be discontinued when the desired result was secured; thus having something to fall back upon in case of further need in that direction.

Hence working and observant men seem instinctively to have chosen the whitest bread, as more easily digested, and as giving more strength to work. A middle course would seem, in the present state of our knowledge, to be the most desirable, — neither to use the finest flour, nor the whole product of the grain known as seconds flour, which should contain eighty per cent. of the whole grain. It has been said that the very outer skin has been removed, thus yielding eighty-eight per cent. of the grain, excluding only the perfectly indigestible portion.

GOOD BREAD.

One other reliable fact may here be stated in reference to wheat bread, as it is on every table. One hundred pounds of flour will make one hundred and thirty-three and one third pounds of bread; that is, out of three hundred pounds of flour, our baker sells us four hundred pounds of bread. But he is not satisfied until he adds one third to that profit, by either putting in some alum, which, while it whitens the loaf, makes it capable of holding one third more water. Or, if three or four pounds of rice are boiled three hours in three gallons of water, and this is mixed with the flour in the dough, a large increase of weight is added to the bread. To make good bread, thirty-seven per cent. of water should be added to the flour; that is, sixty-three pounds of flour, and thirty-seven of water.

NOTES.



NOTE I.

MIASM.

MIASM and **Malaria** both mean a bad atmosphere, but **Miasm** is applied to a particular kind of air; it means literally an “emanation,” something rising up from the ground, as fog is seen to do sometimes from the water. This emanation is invisible, and so impalpable that no chemist has ever been able to detect its presence in a bottle of the air taken from the miasmatic districts. Still its laws have been determined with remarkable precision; and as this miasm is believed by scientific men to be the cause of almost every disease which falls upon communities, — from Asiatic cholera and yellow fever down to intermittents, ague, and similar maladies, — it will be seen at once of what incalculable importance it is that its laws should be known, and human conduct adapted thereto. It would require too much space here to do more than succinctly announce the laws referred to, not even attempting some apparent contradictions. The whole subject, however, is fully discussed in the Congressional reports of the Department of Agriculture for 1865, as prepared for “Hall’s Journal of Health,” Volume XIII., in an article on the proper location of farmers’ houses, city dwellings, etc.

Miasm arises from decaying leaves, wood, and other vegetable matter found in flat lands. Moisture and a

heat over eighty degrees Fahrenheit are essential to its existence. The periods of its greatest malignity are the hours including sunrise and sunset. A cool air of sixty degrees and under causes it to settle on the surface of the earth, so that it is breathed into the lungs and poisons the whole blood, causing death within a week sometimes, of congestive and other malignant fevers. On the other hand, heat antagonizes it, by rarefying the atmosphere, and sending it upwards towards the sky, where it cannot be breathed.

Miasmatic effects can always be prevented in two ways ; hence fever and ague, all classes of intermittents, are preventable, and could be swept from the world. First, If precautions were taken to eat a hearty meal before exposure to it, as by taking a good warm breakfast before going out-of-doors in the morning, in warm weather, and taking supper before sundown. Second, By kindling a lively fire in the family room, half an hour before sunrise and sunset, in warm weather, to burn for an hour ; the most suitable arrangement for this purpose, as well as for affording the most cheerful and healthful heat for all seasons, being the Low Down Grate of Dixon and Sons, of Philadelphia, as it is equally adapted to the burning of wood, peat, coke, or hard or soft coal.

Later and more minute investigations by Dr. Salisbury, of Chicago, seem to show that the deleterious ingredient in a miasmatic atmosphere is a living thing, possessing animal life ; while a lady presented a paper to the French Academy about the same time, describing it as of a vegetable character, — agreeing, however, in one thing, that the origin was from decaying vegetable matter, requiring moisture and heat for its existence.

NOTE II.

OUT-DOOR EXERCISE.

A SINGLE fact has been communicated to the author, since the preceding pages were written, illustrating the value of out-door exercise in diseases more serious than any which have been named. It is earnestly hoped the recital about to be made, with a similar one given as having occurred many years ago, as confirming the truth of the more recent one, will make a deep impression upon every reader, whether the "symptoms" are present in his own person, or in that of some one over whom he possesses influence or exercises authority. The letter, being from a clergyman, is reliable and conscientiously accurate:—

"Five years ago, my friends believed me hopelessly gone in consumption. I was wasted away to a mere skeleton; had to give up my church. From one hundred and fifty-two, my standing weight, I dwindled down to one hundred and eighteen, and remained at that point for about two years. I sent for the book on 'Consumption,' read it, and, with an energy bordering on desperation, set about the method recommended in that work. There was but little change for a few months, but gradually I began to mend. Now I weigh one hundred and fifty-four pounds, and for eighteen months have been travelling as a missionary. My average travel per week, on horseback, is one hundred miles. I have not, in all that time, failed to fill my appointments in consequence of bad 'weather.'

"November 11, 1869."

"EDENTON, NORTH CAROLINA, *February, 1830*

"DR. PHYSIC, PHILADELPHIA:

"DEAR SIR,— In the month of April, 1812, after having been extremely reduced by an attack of bilious fever, I was seized with a cough, which continued, with great obstinacy and severity, until the month of November, when decided symptoms of phthisis (consumption) began to make their appearance. I had every evening an exacerbation (recurrence) of fever, preceded by chilliness, and succeeded by copious perspiration. My cough began to be less painful, but was attended with an expectoration of mucus, mixed with pus (yellow matter). Before this complaint came on me, I had accepted a surgeon's commission in the army, and was stationed at Tarborough, about seventy-five miles from this place. In the month of December, the part of the regiment which had been recruited then having been ordered to Salisbury, it became my duty to repair to that place.

"Accordingly, about the middle of the month, in the situation I have described, I set out on my journey.

"In two days I reached Raleigh, without having experienced any material change in the symptoms of my complaint. During my stay in Raleigh, the disease increased every day, so that I was obliged to remain there nearly a week, at the expiration of which time I had almost determined to retrace my steps, return home, and take my station among the forlorn and despairing victims of this unrelenting malady.

"But reflecting deeply on my situation, and recollecting that scarce a patient in a thousand had been known to recover from the disease after having been confined to bed by it, I was resolved to resume my journey, and

to reach the place of destination or perish on the road. It will be impossible for me ever to forget the effort I had to make in pursuing this resolution. On a cold and blustering morning about the 20th of December, weak and emaciated, having been literally drenched in perspiration the night before, I ascended my gig and proceeded on my journey. The first part of my ride, this day, was excessively irksome and fatiguing. Every hovel and hamlet on the road seemed to invite me to rest, and to dissuade me from the prosecution of my undertaking. Often and anxiously did I wish that my disease had been of such a nature as to allow me to indulge in the inclination I felt to desist from motion. But I continued my ride for three hours, when I found it necessary to stop for a little refreshment. While dinner was preparing, I lay down on a bed to rest. It was, perhaps, an imprudent act. Never was a bed so sweet to the wayworn and exhausted traveller as was this to me. I lay on it for an hour, wrapped, as it were, in elysium. When summoned to dinner, though sleep was fast stealing on me, and inviting me to be still, I arose and attended; and, after having made a very moderate meal of very common country food, I resumed my ride, and at night, about half past six o'clock, arrived at Hillsborough, which is distant about thirty-six miles from Raleigh. The inn to which I had been recommended was unusually crowded; and I had to accept of a room that was out of repair, the window-sashes rattling in their casements, and the wind passing through the sashes in several places. In such a chamber, at such a season, and in the situation already described, was I quartered for the night. To my surprise, however, I had a better night's rest than I had had for several weeks, and less

perspiration, and coughed less than I had for a month before.

“ In the morning, considerably refreshed, I proceeded on my journey, and travelled in a foggy, misty atmosphere full forty miles ; the next day about thirty-five ; and on the fourth day, about twelve o’clock, I arrived at Salisbury. On my arrival, I heard it mentioned as a matter of astonishment, that a man in my situation should think of travelling in the cold and inclement season of winter ; much more astonishing that I should venture to approach the mountains at such a period. But I had taken my resolution, and was determined never to relinquish it while I had power to walk or ride. The regiment to which I was attached was encamped about four miles from the town of Salisbury. To this place I tasked myself to ride twice every day, a duty I regularly performed in the coldest weather until I left the service.

“ Early in January the officer in command received orders to repair with his regiment to Canada. While preparations were making for that purpose, believing that such a climate would be too severe for me, and that I must of course soon cease to be useful to the Government, I addressed a letter to the Secretary of War, soliciting permission to retire from the army. This request was promptly and kindly granted to me. In February, 1813, I commenced the practice of my profession again in this place, and continued to attend to the most laborious duties of it at all times of the day and night, in rain, hail, snow, storms, and sunshine, whenever I was called on, for eighteen months.

“ At the end of that time, I had lost my hectic fever, night-sweats, purulent expectoration, and my cough had

nearly left me ; my chest had recovered its capacity of free and easy expansion, and the ulcers in my lungs had entirely healed. Many who read the foregoing statement will no doubt be curious to know what medical means were used as auxiliaries in the cure of this very alarming state of disease. It would not be in my power to satisfy curiosity on this point were it a matter of any importance, which I conceive is not the case, *the complaint having been cured by hardy, invigorating exercise, continued without interruption in every variety of temperature and weather.*

“ That palliatives of different kinds were resorted to at various periods, must at once be supposed ; but I do not consider it a matter of consequence to name them, as they were such as would readily suggest themselves to physicians of every grade of skill or intellect, and never produced more than a temporary alleviation of symptoms. Perhaps it may be material to state, I never used opium in any form whatever, and that I never incautiously wasted the resources of my constitution by depletory or debilitating means. When symptoms of high arterial excitement occurred, which would sometimes be the case, it was my practice to abstain from strong, high-seasoned food, from all fermented and spirituous liquors, and from active exercise until they subsided. By this negative mode of management I generally succeeded in removing inflammation without materially impairing the energies of my system ; and on the increase of the purulent discharge subsequent to such inflammatory appearances, I betook myself again to my exercise, and ate and drank everything I wanted. I always found that the inconvenience produced by a full meal yielded very soon to horse exer-

cise, and that I generally coughed less while riding than at any other time. The hectic paroxysm was generally interrupted and sometimes cut short by a hard ride ; and often, very often, during the existence of my disease, have I checked the exhausting flood of perspiration, and renewed my strength and spirits, by turning out of bed at midnight and riding a dozen miles or more ; many a time, too, have I left my bed in the early part of the night, wayworn with coughing, restlessness, and sweating, for the purpose of visiting a patient, and after having rode an hour or two, returned home and slept quietly and refreshingly for the remainder of the night.

“ Another thing which I remarked in the course of my experience in the disease was, that some of the most profitable rides I ever took were made in the coldest and most inclement weather (air dense and plenty of oxygen for assimilation), and that scarcely in any situation did I return from a long and toilsome ride without receiving a sensible amendment in all my pulmonary complaints. In short, sir, were I asked to state in a few words the remedy which rescued me, I should say it was a life of hardy exercise, and of unremitting toil, activity, and exposure. With pectoral medicines, or those articles or compositions denominated expectorants, I seldom meddled in my own case ; without opium, which from a constitutional peculiarity I have not been able to take for many years, I found them too debilitating ; and with it, had I been able to use the article, I should not have been disposed to take them, lest their effect in disposing to rest and inactivity might have operated against the course I had prescribed for myself, and from which I expected relief.

“ It remains for me to mention another agent which

I think excited a very curative influence upon my disease, and that is singing. In first using this remedy, it was my custom to sing in a low tone, and not long at a time, so as not to occasion much pulmonary effort. But by degrees I became able to sing in the most elevated tones, and for hours together, allowing myself only such intervals of rest as the lungs required to obviate injurious fatigue. So long and so frequently did I repeat this act in the course of my disease, that the exercise of singing became so strongly associated that as soon as I mounted my horse or ascended my chaise, I found myself humming a tune; and often in my lonely rides through the country, at late and unseasonable hours of the night, have I made the woods vocal with the most exhilarating music. Singing seemed always to have the effect of clearing the bronchial passages, of opening the chest, and of giving a greater capacity of motion and expansion to the lungs. [The Doctor was killed by accident, in 1850.]

“Yours, etc., JAMES NORCOM.”

Dr. Norcom mentions a case as having occurred in 1810, which in 1830, twenty years later, was wholly free from any disease of the lungs. All this patient did was to ride ten miles a day, gradually increasing to twenty miles a day, and by a continuance of exercise was eventually restored to perfect health. All the medicine this man took was tincture of digitalis; but as it is now generally conceded that this remedy is worthless in consumption, the cure must be attributed to the exercise, just as in the following case, as given by Dr. Stokes, whom we have personally known at his own home in Dublin, and whom we found to be, as is universally

accorded by the profession, among the very foremost of living medical minds. The case was first reported in one of the British medical periodicals in 1854, and republished here in April of the succeeding year.

“Some years ago I saw a gentleman who came to town laboring under all the symptoms of well-marked phthisis. The disease had been of several months’ standing, and the patient *was a perfect picture* of consumption. He had a rapid pulse, hectic, sweating, purulent expectoration, and the usual *physical signs* of tubercular deposit, and of a cavity under the right clavicle. I may also state that the history of the disease was in accordance, in all particulars, with this opinion. I saw this patient in consultation with a gentleman of the highest station in the profession, and we both agreed there was nothing to be done. This opinion was communicated to the patient’s friends, and he was advised to return to the country. In about eighteen months afterwards, a tall and healthy-looking man, weighing at least twelve stone, entered my study with a very comical expression of countenance: ‘You don’t know me, doctor?’ he said. I apologized, pleading an inaptitude that belongs to me for recollecting faces. ‘I am,’ he said, ‘the person whom you and Dr. — sent home to die last year. I am quite well, and I thought I would come and show myself to you.’ I examined him with great interest, and found every sign of disease had disappeared, except that there was a slight flattening under the clavicle.”

The course pursued by this gentleman was the reckless pursuit of game; hunting and shooting wild ducks, regardless of all weathers; feet wet for a whole day at a time; standing up to his hips in water of a winter’s

day, in the River Shannon. His motto was, "Go ahead, keep moving," in the blessed open air.

In this case of Dr. Stokes, it should be remembered, first, that he was one of the best judges of consumption in the British nation, and that he considered it hopeless of cure. We must also in this, as well as in the case given by Dr. Norcom, attribute the cure to the exercise in the open air. It cannot fail to strike the reader with peculiar power, that when under a certain variety of treatment a person recovers from a particular disease, but that in that treatment one element is always present largely under all circumstances, while as to the other elements there is great diversity as to combination, as well as to their very nature, we are obliged to conclude that restoration depends on the one large ever present element, and that the other elements, various in nature, quantity, and combination, are without any material efficiency.

A. P., a lawyer poet of some renown, a native of New England, a sixth child. His parents had died of consumption; all his brothers and sisters, as they approached the age of twenty-one, paled away and died of the same disease. No one of his neighbors looked for any different result in his case, and beginning to grow feeble in his twentieth year, and being the last of his family, with dear associations around the home of his childhood, he, in utter recklessness, penetrated the forests of Arkansas, lived a hunter's life, camped out for weeks and months together, and now, at the end of thirty years, and in perfect health, weighs over a hundred and seventy-five pounds.

The above are cases which illustrate what out-door activities will accomplish towards the removal of dis-

eases which have been burrowing in the system for weeks and months and years ; all acting in the way of invigorating the appetite, of making the patient really hungry, first preparing him for a good meal, and then enabling him to digest it thoroughly, so as to give strength and flesh to the body, and to the mind exhilaration and energy.

The following is a recent case in the person of a New York merchant personally known to the writer, who was also cognizant of all the facts before and since.

He was in the prime of manhood, engrossed with a large and responsible business ; but midsummer coming on, he found himself losing appetite, strength, and flesh. He had no relish for anything ; his eyes became sunken and yellow, his face pale and thin, his gait weary, and all exercise an effort. The necessities of an extensive business seemed to demand his personal presence until his condition so alarmed his family that an immediate change was demanded. He at once began preparation for a month's camping out in the open air, hunting and fishing with two or three genial companions. In forty-eight hours after he left his beautiful home on the Hudson his sleep was perfect ; his appetite voracious enough to eat anything he could get in the wild mountainous country. At the end of a month he returned to business apparently in exuberant health, and so remains at this writing, sixteen months later.

Let it be borne in mind that our common diseases, especially the four more particularly named in these pages, are the result of an over-fullness, a clogging up of the human machine by the failure for a long time to carry out of the body the waste and wear and other useless matters of the system : these interfere with its vig-

orous and healthful working, and disease is the result. The first and absolutely essential step in the cure of all human maladies is the removal of the cause ; and as the cause in question is a surplus of various matters in the body, this surplus must be conveyed out of it, which being done, the body returns to its healthful condition of and by itself, by virtue of the power within it implanted by Nature, and made a component part of ourselves, — the power which the educated physician loves, from its expressiveness, to denominate the *VIS MEDICATRIX NATURÆ*, the power of nature to cure herself. Only take the burden from her, and she rises to her feet on the instant almost.

The elements of cure of this case of biliousness were .

1st. Relieving the mind of its enormous load of business responsibility.

2d. Bringing about the exercise of a new set of muscles.

3d. Being in the open air the whole of the time ; for each breath goes into the lungs, in a sense, empty, and comes out full freighted with useless and deleterious matters, thus removing an immense amount of them in twenty-four hours.

It was just said, for the sake of making a plain point, that each breath went into the lungs “empty:” that is literally farthest possible from the truth ; for in reality, each breath goes into the lungs full of life, — that life which comes to us in the glorious sunshine, the pure, energizing oxygen. This life is imparted to the blood, and gives it its renovating power.

4th. The fourth point is that the bodily activities, as has been previously explained, work out of the body the matter which clog up its operations, and interfere with

its healthful movements ; thus in reality without any exaggeration, every breath drawn, every motion made in the open air, even to the

TWINKLING OF THE EYE,

leave the system that much less oppressed, that much less clogged up, that much nearer life and health and happiness ; and yet in the very sight of this life and health and happiness, multitudes die every year, simply for the want of energy, of force of character, to put out the hand and take them, and be saved !

The above statements of facts, in connection with what has been advanced in the preceding pages, seem to show very conclusively that there are four steps to be taken to maintain health and to cure ordinary diseases.

First. The wastes and impurities of the system must be worked out of it by exercise, including voluntary and involuntary muscular activities.

Second. An appetite must be had as a necessary step towards a supply of the wastes of the body.

Third. Food must be provided to meet this demand of the system, called "appetite."

Fourth. This food must be of the best kind of meats, fish, poultry, game, the grains which make bread, and the fruits of the earth, prepared in the best manner, that is, in such a way that they shall come upon our tables in their simplicity, possessing all their natural juices. And let us not fail to note, as we close the book, the wisdom and goodness of the great Maker of our frames : first, in the economy of means to an end ; the very exercise which works the wastes and impurities out of our bodies generates the appetite which is so essen-

tial to the repair of those wastes ; at the same time ordering that exercise should be a pleasure, and the gratification of the appetite, which the exercise procures, should be an every-day gratification and satisfaction, from earliest youth to extreme old age.

NOTE III.

FOOD CURE.

THE onion is one of the most healthful and nutritious of the vegetables of its class, but it seems to have great power of absorption of atmospheric and other poisons, and, if eaten largely during epidemics, will prove fatal. A man in the frenzy of hydrophobia ate voraciously of onions, and recovered. Snake-bites, and insect stings, seem to have been rendered harmless by eating onions, and by the application of onion poultices. In a room with small-pox patients, onions decay rapidly and blister, as if they absorbed the virus, which they retain for some weeks. By absorbing the virus of a small-pox atmosphere, they apparently prevent the disease, but should not be eaten in such an atmosphere. If applied to the feet of fever patients, they quickly turn black.

There are several establishments on the banks of the Rhine, in Germany, where diseases simulating consumption are successfully treated in five or six weeks, by causing the patients to live almost exclusively on grapes, gathered by themselves and slowly eaten in the open air. The intelligent physician will readily perceive how this treatment might be efficacious in a large

class of cases, arising from constipation, indigestion, and torpidity of the liver.

Peanuts eaten freely have been observed in some cases to remove biliousness.

NOTE IV.

FALL FROM A BALLOON.

THE fall from a mile in height occurred in Ohio, about the year 1840, when a balloon collapsed and the occupant fell from a height estimated by the more experienced of the spectators to be over two miles; it was thought better to have a liberal margin for the statement at the bottom of page 2.

NOTE V.

GENERAL DEBILITY.

MANY persons have a feeling of weakness which pervades the whole body; there does not seem to be any actual disease, but a want of wellness; there is no spring in the step, no elasticity of spirits; it is a general indisposition to do anything; no ambition to undertake anything, because faithful instinct is, as it were, conscious that there is neither physical strength or mental power to accomplish, to carry out the undertaking. In almost all cases of this sort the foundation of such an unfortunate condition is in the stomach not being able to obtain as much nutriment out of the food eaten as the system requires. The physician is told that there is no want of appetite, that the food tastes good, and that quite enough is eaten, "but it does not seem to

strengthen me any. I eat heartily enough, but it does me no good."

The trouble in this class of cases is, that so much work is given the stomach to perform that it cannot do it. Let the reader please turn to pages 158 and 184.

In a "notice" of this book in the "Toledo Commercial," the writer of the critical notices, very pertinently and encouragingly to the invalid, narrates a case coming under his own personal observation:—

"We knew of the case of a man of more than fifty years of age, who some years ago in Cincinnati was in a broken and enfeebled condition, with a general sluggishness and want of action in his whole system. No friendly fit of sickness came to lay him up and give the body time to purge itself. He therefore determined to give himself a three weeks' fast and rest. He ate only a crust of bread or a few crackers at each meal-time, and spent most of the time lying down in his room. At the end of three weeks he was of course considerably reduced, but the body had secured a thorough rest, and every organ and every drop of blood had been busy expelling dead matter from the system. He began then to eat gradually and moderately, and strength rapidly returned. He was a new man. There was a buoyancy of spirits and an elasticity of body which he had not felt for thirty years. And this man, with moderate eating and moderate daily exercise, might have lived, Cornaro-like, a cheerful and comparatively vigorous life until eighty years of age."

The point on which the reader should fix his eye is, that in all such cases the stomach requires rest; that

rest gives power to work, just as the ploughman at night-fall comes home almost too tired to step over his threshold, with scarcely power "to do a single hand's turn," and yet in the early morning he leaves his home as blithe as a lark, like "a strong man armed" to battle with another day's toil. He wanted nothing but rest. In such cases the stomach wants nothing but rest; a stimulant is worse than nothing, because it gives no strength, any more than the lash gives strength to the poor dumb animal on the point of exhaustion, to make it go a few rods further, and yet this is what stimulants and tonics and mustard and pepper do for us when we take them to strengthen the stomach, — they destroy. On a kindred point the same writer gives another case which is full of instruction, in reference to the remarks made in the preceding pages, in connection with biliousness: —

"We remember a case which was cured several years ago in Toledo by simply going without supper for some ten days and keeping the skin clean by daily ablutions. This was a cure, for the man has not been troubled with biliousness since, except in a very slight degree during the dog-days. He continued on duty at his business, and took no exercise except the walk from the house to the office. Instead of leaving the stomach entirely empty, however, from dinner until the next morning, he took several glasses of lemonade at supper time. The acid of the lemon is no doubt beneficial, for the bilious man craves acid. Every morning, this patient rose with a wonderful sense of rest, refreshment, and a feeling as though the blood had been literally washed,

cleansed, and cooled by the lemonade and the fast. This theory of cure was his own, adopted without the advice of the physician, and it was perfectly successful. Cases of long standing would of course need a longer-continued fast."

In sincere sympathy with the invalid reader it is desired to draw attention to this one point. Here are corroborations of the truth of the theories of the book; testimonies given from disinterested men of observation, of reflection, given too to advance the cause of truth, for Mr. M. says in another place, that the author is at liberty to use his statements in any way deemed advisable; and at the risk of having the volume designated as a scrap-book, the following cases coming under M.'s keen observation are also appended:—

THE CURE OF A DYSPEPTIC.

"We knew of a case some years ago which was cured in about four months by exercising three or four times a week until the body passed through a thorough sweat, and by a continued battle with, and daily refusal to gratify a morbid appetite. This man, however, was braver than Mr. Lawrence, for he went to the table three times a day, but with each meal mapped out before going. Having ascertained by experience how much was not 'too much,' he bound himself by a vow beforehand, sometimes for a week at a time, sometimes for only one meal, that he would eat just so much, naming the quantity and frequently the kind. To illustrate: He found that he could eat and digest about four or five 'takes' for dinner, and about three or four for

breakfast and supper. He therefore said before going to dinner, 'I will "take" one slice of bread, one slice of meat, one spoonful of potato or other vegetable, and one piece of pie or dish of other dessert.' He knew that his only hope of self-control and of cure was in respecting his vow, and he rigidly kept it, thus binding himself and battling for four or five months, at the end of which time his appetite was good, eating was a positive gratification, and he was not aware that he had a stomach. It must be stated also that he bound himself not to eat between meals. One of the best and least anticipated effects of this course was that it secured thorough mastication and insalivation of the food, — a thing necessary to good digestion. For he spent as much time in eating this quantity as he would have done in eating twice as much, and he soon found himself instinctively prolonging the meal, and making the most of the quantity which he had allowed himself."

INSTINCT AND THE FEVER CURE.

Mr. M. gives another striking "case": —

"The most remarkable case of this instinct and of a fever cure (not 'on record,' for this is the first time it has been put on record), of which we have ever heard, occurred some years ago in this State. It is vouched for by a physician in good standing. He left a fever patient in the early evening under the impression that nothing could save him, and that he would be dead by morning. About midnight a member of the patient's family called him up and requested him to visit the patient again. Going toward the house, when a square

distant, he heard a voice crying, 'Cider! Cider! Cider!' the voice growing louder as he neared the house, and continuing the cry in a monotonous and mechanical tone. He found on entering the house that the cry issued from his patient, who seemed unconscious and paid no attention to anything said or done, but kept on crying 'Cider!' The physician procured a pitcher full of cider and raised the patient up, resting his back against pillows, and placed the pitcher in his hands. He clutched it greedily and drained it to the bottom! Then he went on crying 'Cider!' the cry gradually growing lower until the patient fell asleep. The physician remained until the man's skin began to soften and grow moist. In the morning the physician returned and found the patient doing well, and he soon recovered. He had no recollection whatever of having cried 'Cider!' having been unconscious all the while. The instinct within him appears to have taken possession of the unconscious man, and like a good spirit, used his voice to tell what would save him. Cider, therefore, may be set down as a remedy for fever."

In another part of this book the value of acids, in some conditions of the system, is referred to. The latest researches in physiology show that they act upon the liver and thus promote the withdrawal of the bile from the blood. Too much bile in the blood is the cause of bilious fever. It should, however, be borne in mind, that the natural acids, as in fruits and lemons, are more beneficial than acids which are the result of fermentation, such as vinegar, the habitual and large use of which for a considerable time has been known to cause

confirmed consumption, hence the acid of the lemon is safer and more efficient than cider or vinegar.

The author does not hesitate to use whole facts, for they alone are truths, wherever he finds them, and place the whole world under contribution for the purpose of making a book which is safe, practical, and true as to its great general principles, and which may be read with as much profit by persons of every age and sex and condition twenty years to come as to-day; and it may be destined to fill a place assigned for it by that distinguished man, Henry Ward Beecher, who has written of it in his "Christian Union": "We can cordially recommend it for school and village libraries; it would do much toward teaching the young how to keep God's law written in their bodies."

And here the author desires to suggest respectfully to parents, that a book thus spoken of by prominent, educated men is most likely a safe book for all young persons to read. Suppose, for example, that a father or mother has it in contemplation to prepare a son for the ministry, or of greater moment still, for the missionary field in foreign lands, and that son by reading the book should learn to understand the importance of taking care of his health, and should use the safe and practicable means advised for doing this, what arithmetic can compute the difference between the influences left on the world's history from a broken constitution on the day of his leaving the seminary and travelling for his health, to die in a year or two, or even less, and embarking for a foreign missionary field with a stalwart body and a vigorous intellect, and living to the age and influ-

ence and power of a Judson, a King, a Scudder, or a Morrison, working for the elevation of whole peoples from barbarism to the plane of a Bible Christianity. Let parents and the managers of our schools, academies, colleges, and theological seminaries think of this.

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